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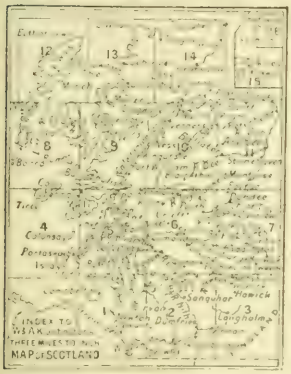

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Assistant Surgeons,	Mr J. M. Cotterill. Mr Charles W. Cathcart. Mr Francis M. Caird. Mr Hodsdon. Mr J. Shaw M'Laren. Mr David Wallace. Mr Alexis Thomson.
Assistant Ophthalmic Surgeons,	Dr Wm. Geo. Sym. (Vacant).
Assistant Surgeon to Ear and Throat Department,	Dr R. M'Kenzie Johnston.
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"CARLYLE'S FRENCH REVOLUTION."

In accordance with the Terms of the Trust Deed, the Competitors for these Prizes must Students in the University of Edinburgh in this Winter Session (1896-97), who, at the commencement thereof, were not of more than three years' standing from their first Matriculation in a University Curriculum. Each Essay submitted for Competition must have a Motto prefixed to it, and be accompanied with a SEPARATE sealed Envelope, bearing this Motto, and having enclosed the Name and Address of the Author; and these must be forwarded to the Secretary on or before the 1st of September next. The length of each Essay must not exceed 5000 words, and the Trustees find it necessary to make this restriction an ESSENTIAL condition in the Competition. The decision will be announced in the Newspapers in the beginning of November, but if it is judged that none of the Essays merit the Prizes offered, the right is reserved of declining to award them, and of offering them for future Competition. The successful Essays will be retained as the Property of the Trustees. The Sealed Envelope must not be put within an Essay, but sent enclosed to the Secretary apart.

All necessary information is contained in this advertisement.

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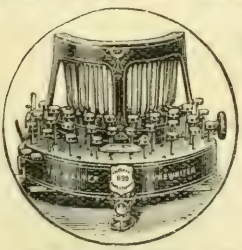

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PREFACE.

THE EDINBURGH UNIVERSITY CALENDAR *for the academic year* (1*st October to* 1*st October*), *published annually in June by authority of the Senatus Academicus, contains Synopses of the Courses of Lectures delivered by the Professors and Lecturers; the Class Prize Lists; the Regulations and Subjects of Examination for Degrees in Arts, Science, Divinity, Law, Medicine, and Music; the papers set for the Preliminary Examinations and for the Examinations for Degrees, &c.; the Regulations for the Schoolmaster's Diploma; the Annual Graduation Lists; the Bursaries, Prizes, Scholarships, Fellowships, and other Endowments of the University; Benefactions*[1] *to the University; Bequests and Donations in* 1896-97; *a statement of the Annual Income and Expenditure of the University; an abstract of*

[1] A full list of the chief Benefactors, with the purposes of their benefactions, is given at pages 430-442.

the proceedings of the University Court from 1*st May* 1896 *to* 1*st May* 1897 ; *and a list of the University Societies.*

The CALENDAR *is Published by* JAMES THIN, *Edinburgh, and may be had through any Bookseller.* (*Price* 3*s.; by Post* 3*s.* 6*d.*)

The List of Members of the GENERAL COUNCIL, *with their addresses, is sold by the same Publisher.* (*Price* 1*s., by post* 1*s.* 2*d.*)

UNIVERSITY OF EDINBURGH,
June 1897.

Contents.

	PAGE
THE CALENDAR	xiii-xviii
CALENDAR FOR 1898-99	xix
NAMES AND ADDRESSES OF THE PRINCIPAL AND PROFESSORS	xx
NAMES AND ADDRESSES OF PROFESSORS EMERITI AND RESIGNED	xxi
NAMES AND ADDRESSES OF LECTURERS	xxii
UNIVERSITY OFFICERS	1-9
THE UNIVERSITY—	
Constitution	10
Chancellor	10
Vice-Chancellor	11
Rector	11
Representative in Parliament	12
University Court	12
University Committee of Privy Council	15
Curators of Patronage	15
Representative in General Medical Council	16
Principal	16
Senatus Academicus	17
Faculties	18
Faculty of Arts	18
Faculty of Science	20
Faculty of Divinity	21
Faculty of Law	22
Faculty of Medicine	23
Faculty of Music	24
General Council of the University	25
Students' Representative Council	26
Matriculation	27
Sponsio Academica	28
Non-Matriculated Extra-Academical Students	29
University Entrance Fee for Non-Matriculated Students	29
Discipline	30
University Examiners for Degrees	30
Graduation Ceremonials; Precedence	30
Academic Costume	30

PAGE

REGULATIONS REGARDING—
(1) Absence of Professors 31
(2) Absence of Examiners 32
(3) Applications for Examinerships . . . 32
(4) Opening of New Classes 33
(5) Recognition of Extra-Academical Teachers . . 33
UNIVERSITY BUILDINGS 34
(1) University (Old) Buildings 35
Dome 37
(2) University New Buildings 37
M'Ewan Hall 39
(3) Reid School of Music 40
UNIVERSITY LIBRARY 40
Library Committee 40
Librarians 9
Regulations relative to General Management of the Library 42-47
Reading Rooms 47
THEOLOGICAL LIBRARY 49
PORTRAITS AND BUSTS 49
TORRIE FINE ART COLLECTION 50
MUSEUMS 51
MUSEUMS COMMITTEE 51
ROYAL BOTANIC GARDEN 54

I. FACULTY OF ARTS.

PROGRAMME OF CLASSES, LABORATORIES, FEES, &C. . 55
COURSES OF LECTURES 62
CLASS PRIZE LISTS, 1896-97 478
REGULATIONS FOR GRADUATION— 99-114
Preliminary Examinations 99
Ordinary Degree 101
Degree with Honours 103
Boards of Studies 105
Regulations regarding the Instruction and Examination of Women 107
Regulations for Special Study and Research, and for Research Fellows 109
Regulations for Higher Degrees in Arts and Science (D.Sc., D.Phil., and D.Litt.) 111
Joint Board of Examiners for Preliminary Examination . 114
Fee, dates of entering, and Time-Table for Preliminary Examinations 120
Fees and dates of entering for Examinations for M.A., &c. 123
Time-Table of Examinations for M.A. . . . 124

PAGE

Outline of Examinations for Ordinary Degree for 1897-98 126
Outline of Examinations for Degree with Honours for 1898 and 1899 133
Regulations for Schoolmaster's Diploma . . 142
Diploma Conferred, 1897 148
Certificate of L.A. Conferred, 1896-97 . . . 148
Result of Competitive Exam. for Bursaries—Honours List, October 1896 143
Examination Papers for Degrees in 1896-97 . . 527
Preliminary Examin. Papers for Degrees in Arts, Science, Law (B.L.), and Music 527
Exam. Papers for First Year Bursaries . . . 586
Examination Papers for Ordinary Degree of M.A. . 610
Do. for Schoolmaster's Diploma . . 640
Do. for Degree of M.A. with Honours . 657
Higher Degrees in Arts (D.Litt., D.Phil.) Conferred 1897 144
Sponsio Academica 145
Graduates in Arts—Honour Lists, 1889-1897 . . 145
Graduates in Arts, 1896-97 147
Bursaries, List of 149
Prizes 163
Scholarships 164
Fellowships, &c. 176
Fellowships, Scholarships, Prizes, and Bursaries, Open in 1897-98 179

II. FACULTY OF SCIENCE.

Programme of Classes, &c. 191
Laboratories, &c. 196
Courses of Lectures 197
Class Prize Lists 492
Regulations for Graduation— 214
Preliminary Examination 215
Pure Science 214
Regulations for Special Study and Research, and for Research Fellows 220
Regulations for D.Sc. 222
Regulations for Graduation of Women . . . 223
Outline of Subjects of Examinations in Pure Science . 225
Engineering 230
Outline of Subjects of Examination for B.Sc. . . 234
Regulations for D.Sc. 235
Public Health 235
Schedules of the Subjects of Examination for B.Sc. . 237
Regulations for D.Sc. 240

PAGE

AGRICULTURE (Degree of Bachelor only) . . . 240
Outline of Subjects of Examination . . . 244
FEES FOR GRADUATION 248
TIME-TABLE OF EXAMINATIONS 249
EXAMINATION PAPERS 727
LIST OF D.SC. 252
GRADUATES IN SCIENCE, 1896-97 253
FELLOWSHIPS, SCHOLARSHIPS, &C. 254
FELLOWSHIPS, SCHOLARSHIPS, &C., OPEN IN 1897-98 . 260

III. FACULTY OF DIVINITY.

PROGRAMME OF CLASSES, &C. 263
CURRICULUM FOR MINISTRY IN THE CHURCH OF SCOTLAND 263
COURSES OF LECTURES 265
CLASS PRIZE LISTS, 1896-97 495
REGULATIONS FOR GRADUATION 270
OUTLINE OF SUBJECTS OF EXAMINATION, 1897-98 . . 271
FEES FOR EXAMINATIONS 272
TIME-TABLE OF EXAMINATIONS 272
EXAMINATION PAPERS FOR DEGREE OF B.D. . . 756
GRADUATES IN DIVINITY (B.D.), 1896-97 . . . 273
HONORARY DEGREE OF DOCTOR OF DIVINITY . . 273
BURSARIES, PRIZES, SCHOLARSHIPS, &C. . . . 274
Do., OPEN IN 1897-98 284

IV. FACULTY OF LAW.

PROGRAMME OF CLASSES, &C. 287
COURSES OF LECTURES, &C. 288
CLASS PRIZE LISTS, 1896-97 496
REGULATIONS FOR GRADUATION— 293
Degree of Bachelor of Laws (LL.B.) . . . 293
Degree of Bachelor of Law (B.L.) . . . 295
Preliminary Examination for B.L. . . . 295
Examinations for LL.B. and B.L. . . . 296
Fees for LL.B. and B.L. 297
Time-Table of Examinations, &c. . . . 298
EXAMINATION PAPERS FOR LL.B. AND B.L. . . . 768
LIST OF LL.B. 299
,, B.L. 301
DOCTOR OF LAWS, LIST OF 301
BURSARIES 304
SCHOLARSHIPS, &C. 305
SCHOLARSHIPS, BURSARIES, PRIZES, &C., OPEN IN 1897-98 . 308

V. FACULTY OF MEDICINE.

PROGRAMME OF CLASSES, &C. 311

PAGE

LABORATORIES 316
REGISTRATION OF STUDENTS 318
ORDER OF STUDY RECOMMENDED 318
COURSES OF LECTURES 320
CLASS PRIZE LISTS, 1896-97 499
REGULATIONS FOR GRADUATION— 338
Preliminary Examination 338
Period and Course of Professional Education . 339, 374
Professional Examinations for M.B. and Ch.B., &c. . 345
Regulations for M.D. 347
Regulations for Ch.M. 348
Regulations for the Education and Graduation of Women 350
Regulations for Special Study and Research, and for Research Fellows 352
Regulations for Degree of D.Sc. 353
Additional Regulation of Joint Board for Preliminary Examination 354
Examinations exempting from Preliminary Examination . 357
Regulations as to Class Examinations . . . 361
Certificates of Attendance on Classes . . . 361
Outline of Subjects for First Professional Examination . 362
Honours at Professional Examinations . . . 364
Sponsio Academica in Medicine 364
Fees for Examinations 365
Time-Table of Preliminary Examination . . . 359
Time-Table of Professional Examinations, &c. . . 366
Extra-Academical Teachers recognised by the University . 369
Graduation under Old Regulations . . . 373
Time-Table of Examinations, Fees, &c. . . . 381
Gold Medallists (M.D.) 383
Doctors of Medicine, 1896-97 384
Graduates (M.B., C.M.) with Honours . . . 389
List of Graduates (M.B., C.M.), 1896-97 . . . 391
PRELIMINARY EXAMINATION PAPERS . . . 610
PROFESSIONAL EXAMINATION PAPERS . . . 780
FELLOWSHIPS, &c. 395
SCHOLARSHIPS 396
BURSARIES 403
PRIZES 406
FELLOWSHIPS, SCHOLARSHIPS, BURSARIES, AND PRIZES, OPEN IN 1897-98 410

VI. FACULTY OF MUSIC.

COURSES OF LECTURES 413
HISTORICAL CONCERTS 414
CLASS PRIZE-LISTS 525

PAGE

REGULATIONS FOR DEGREES IN MUSIC—
1. Bachelor of Music (Mus. Bac.) 414
2. Doctor of Music (Mus. Doc.) 415
SUBJECTS OF PRELIMINARY EXAMINATION . . . 417
TIME-TABLES OF EXAMINATIONS, FEES, &c. . . . 417
EXAMINATION PAPERS FOR MUS. BAC. . . . 798
SCHOLARSHIP 418

NEW FOUNDATIONS 419
BENEFACTORS OF THE UNIVERSITY 430
BEQUESTS AND DONATIONS in 1896-97 . . . 440
ABSTRACT OF ACCOUNTS OF THE UNIVERSITY, 1895-96 . 443
UNIVERSITY COURT—Abstract of Proceedings of, 1896-97 . 454

MISCELLANEOUS.

I. CIVIL SERVICE OF INDIA 466
II. EXAMINATION OF CANDIDATES FOR THE ARMY . 466
III. SYLLABUS OF SUBJECTS OF EXAMINATION FOR STUDENTS OF DIVINITY . . . 467
IV. EDINBURGH UNIVERSITY UNION . . . 467
V. STATISTICS OF RECTORIAL ELECTIONS . . 468
VI. ROYAL MEDICAL SOCIETY 468
VII. INTERNATIONAL ACADEMIC COMMITTEE . . 469
VIII. ASSOCIATION FOR THE BETTER ENDOWMENT OF THE UNIVERSITY OF EDINBURGH . . . 469
IX. UNIVERSITY BUILDINGS EXTENSION SCHEME . 470
X. EDINBURGH UNIVERSITY SOCIETIES AND CLUBS . 470

INDEX 805

University Calendar.

1897.

Oct. 1. Fri. **ANNUS ACADEMICUS** begins.
First day for payment of **MATRICULATION** fee.
Annual Inspection of Library. All books to be returned before this date. Library closed for lending till 8th.
Last day for Names of Candidates for Degrees in Arts and Science, for B.L. Preliminary on M.A. Standard, and for First Year Law Bursaries, to be given in, Certificates shown, and Fees paid.

,, 5. Tu. Examinations for M.A., and for B.L. Preliminary on M.A. Standard begin. See Time-Table, page 124.
Practical Anatomy and Public Health Laboratory Courses begin.

,, 7. Thur. Examinations for Degrees in Science begin. See Time-Table, page 249.

,, 12. Tues. **CLASSES IN THE FACULTIES OF ARTS, SCIENCE, AND MEDICINE OPEN.**
Last day for Names of Candidates for B.D. to be given in, Certificates shown, and Fees paid.

,, 15. Fri. **CLASSES IN FACULTY OF LAW OPEN.**
Last day for entering Names for Second and Third Year Bursaries in Law.

,, 16. Sat. Meeting of Senatus Academicus at 2 P.M.; Standing Committees to be appointed.

,, 18. Mon. **CLASSES IN FACULTY OF MUSIC OPEN.**
Meeting of University Court at 4 P.M.
Last day for Names of Candidates for Examinations for Degrees in Law to be given in, Certificates shown, and Fees paid.

,, 19. Tu. Examinations for B.D. begin. See Time-Table, page 272.

,, 25. Mon. Examinations for Degrees in Law begin. See Time-Table, page 299.

,, 26. Tues. **CLASSES IN FACULTY OF DIVINITY OPEN.**

,, 29. Fri. Meeting of General Council at 3 o'clock.

Nov. 5. Fri. Examinations for Divinity Bursaries begin.

1897.		
Nov. 15.	Mon.	Meeting of University Court at 4 P.M. Certificates for Bursaries, &c., granted by Deans. Fellowships, Scholarships, Bursaries, paid by Factor.
,, 27.	Sat.	Meeting of Senatus Academicus at 2 P.M.
,, 30.	Tues.	Registration of Members of General Council for Register of 1898 ends.
Dec. 11.	Sat.	Meeting of Senatus at 2 P.M. :— (1) Election of Managers for Royal Infirmary. (2) Report to Widows' Fund. (3) Arrangements for Winter and Summer Sessions, 1898-99.
,, 13.	Mon.	Meeting of University Court at 4 P.M.
,, 17.	Fri.	Classes meet for last time before Christmas Vacation.
,, 20.	Mon.	Library, Reading Room, and University Offices open from 10 A.M. to 1 P.M. till 4th January. Closed on Saturdays. Reading Room, New Buildings, closed.
,, 25.	Sat.	**CHRISTMAS DAY.** (Holiday.)
1898.		
Jan. 1.	Sat.	HOLIDAY.
,, 4.	Tues.	Classes meet after Christmas Vacation.
,, 17.	Mon.	Meeting of University Court at 4 P.M. Appointment of Examiners.
,, 20.	Thur.	Last day for lodging Theses and for payment of Fees for D.Sc., D.Phil., and D.Litt.
,, 24.	Mon.	Meeting of University Court for hearing Registration Appeals (if any) at 4 P.M.
,, 29.	Sat.	Meeting of Senatus Academicus at 2 P.M. :— (1) Annual Report on University Library to be given in. (2) Names for Honorary Degrees to be proposed.
Feb. 14.	Mon.	Meeting of University Court at 4 P.M. Holiday in Faculty of Arts.
,, 26.	Sat.	Meeting of Senatus Academicus at 2 P.M. :— (1) Report on Honorary Degrees in Divinity and Law. (2) Resolution to Elect Member of General Assembly.
March 1.	Tues.	Last day for Names for Preliminary Examination to be given in, and Fees paid.
,, 4.	Fri.	Last day for Names of Candidates for Degrees in Arts, for Schoolmaster's Diploma, and for B.L. Preliminary on M.A. Standard to be given in, and Fees paid.
,, 7.	Mon.	Last day for Names of Candidates for Degrees in Law to be given in and Fees paid.

1898.

March 8.	Tues.	Last day for Names for First Professional Examination in Medicine, and for Examinations for Degrees in Science to be given in, and Fees paid.
.. 10.	Thur.	Last day for Names for Examinations for Degrees in Music to be given in, Certificates shown, and Fees paid.
,, 14.	Mon.	Meeting of University Court at 4 P.M. Last day for Names for Second Professional Examination in Medicine to be given in, and Fees paid. Examinations for M.A., and for Degrees in Law begin. See Time-Tables, pages 124 and 299.
,, 15.	Tues.	Last day for Names of Candidates for Scholarships in Arts and Science to be intimated.
.. 18.	Fri.	**CLASSES IN FACULTIES OF DIVINITY, LAW, AND MEDICINE CLOSE.** Certificates for First Professional Examination to be examined from 10 to 3.
.. 19.	Sat.	Practical Chemistry Examinations for Degrees in Arts, Science, and Medicine begin.
.. 21.	Mon.	First Professional examination in Medicine, B.Sc. Examinations, and Science Subjects for M.A. begin. See Time-Tables, pages 125, 250, 366, 382.
.. 22.	Tues.	Last day for Names to be given in, Certificates shown, and Fees paid for B.D. Examinations.
,, 23.	Wed.	Certificates for Second Professional Examination to be examined from 10 to 3.
,, 24.	Thurs.	Examinations for Degrees in Music begin. See Time-Table, page 418. Last day for Names for Third Professional Examination in Medicine (New Regulations) to be given in, and Fees paid.
,, 25.	Fri.	**CLASSES IN THE FACULTIES OF ARTS AND SCIENCE CLOSE.** Preliminary Examinations begin. See Time-Table, page 122. Examinations for M.A. with Honours and for Scholarships begin. See Time-Table, page 125. Second Professional Examinations begin. See Time-Tables, pages 367, 382.
,, 26.	Sat.	Meeting of Senatus Academicus at 2 P.M. :— (1) Member of Assembly to be elected. (2) Acceptances of Honorary Degrees.
,, 26.	Sat.	Certificates for M.A. Examinations in April to be shown before 1 P.M.

1898.

Mar. 29.	Tues.	B.D. Examinations begin. See Time-Table, page 272. Certificates for Third Professional Examination (New Regulations) to be examined from 10 to 3.
April 2.	Sat.	Third Professional Examinations (New Regulations) begin. See Time-Table, page 367.
,, 8.	Fri.	**GOOD FRIDAY.** HOLIDAY.
,, 12.	Tues.	Names of Candidates for Final Exam. in Medicine to be given in, Certificates shown, and Fees paid.
,, 13.	Wed.	**GRADUATION CEREMONIAL IN DIVINITY, LAW, ARTS, AND SCIENCE, AT 10 A.M. COMMEMORATION SERVICE IN ST GILES'S AT 12.** Meeting of Senatus at 9.30 A.M.
,, 14.	Thur.	Senatus Office open from 10 to 1 till 1st May. Closed on Saturdays.
,, ,,	,,	Certificates for Final Exam. to be examined from
,, 15.	Fri.	10 to 1.
,, 18.	Mon.	Meeting of University Court at 4 P.M. Edinburgh holiday.
,, 19.	Tues.	Meeting of University General Council at 3 P.M. University Library and Reading Room, in New Buildings, open from 10 A.M. to 1 P.M. till 26th April. Closed on Saturdays.
,, 30.	Sat.	Last day for giving in Theses and paying Fees for M.D.
May 3.	Tues.	**SUMMER SESSION OPENS.** Clinical Medicine Exams. begin.
,, 12.	Thur.	**LAW CLASSES OPEN.**
,, 16.	Mon.	Meeting of University Court at 4 P.M.
,, 18.	Wed.	Fellowships, Scholarships, Bursaries, paid by Factor.
,, 19.	Thur.	HOLIDAY. General Assembly meets.
,, 27.	Fri.	Meeting of Senatus Academicus at 3 P.M.
June 13.	Mon.	Meeting of University Court at 4 P.M.
,, 20.	Mon.	Final Prof. Written Exam. in Med. begins. See Time-Table, page 368.
,, 22.	Wed.	Clinical Surgery Exam. begins.
,, 24.	Fri.	Meeting of Senatus Academicus at 3 P.M. Last day for Names to be entered and Fees paid for Candidates for Clinical Examinations only for M.D.

1898.

July 8. Fri. Clinical Medicine Examination for M.D. (New Regulations) begins at 9.45 A.M.
Last day for Names of Candidates for Examinations for Degrees in Arts and Science, and for First Professional Examination in Medicine to be given in, and Fees paid.

,, 14. Thur. Last day for Names of Candidates for Second Professional Examination to be given in, and Fees paid.

,, 15. Fri. SUMMER SESSION ENDS. Certificates for First Professional and Arts and Science Examinations to be examined from 10 to 3.

,, 16. Sat. Practical Chemistry Examination for Degrees in Arts, Science, and Medicine begins.
Second Professional Examination Certificates to be examined from 10 to 3.

,, 18. Mon. Meeting of University Court at 4 P.M.
Examinations for Degrees in Arts (Dept. of Science), for Degrees in Science, and First Professional Examination in Medicine begin. See Time-Tables, pages 126, 250, 366, 382.

,, 19. Tu. Names of Candidates for Third Professional Examination in Medicine (New Regulations) to be given in, and Fees paid.

,, 21. Thur. Second Professional Examination in Medicine begins. See Time-Tables, pages 367, 383.

,, 25. Mon. Certificates for Third Professional Examination (New Regulations) to be examined from 10 to 3.

,, 26. Tu. Third Professional Examination. See Time-Table, page 367.

,, 29. Fri. Meeting of Senatus Academicus at 3 P.M.
Candidates for Degrees to be approved.

Aug. 1. Mon. **GRADUATION CEREMONIAL IN LAW, MEDICINE, AND SCIENCE AT 10 a.m.** Meeting of Senatus at 9.30 A.M.
Library open from 10 A.M. to 1 P.M. till Thursday, 1st September. Closed on Saturdays. Reading Room, New Buildings, closed during same period.
University Offices open from 10 to 1 till 1st October. Closed on Saturdays.

Sept. 1. Thur. Reading Room in University New Buildings open from 10 to 1 till 1st October. Closed on Saturdays.

1898.

Sept. 16.	Fri.	Last day for Names of Candidates for Preliminary Examinations to be given in and Fees paid. Last day for entering for University Bursaries in the Faculties of Arts, Science, and Medicine.
,, 19.	Mon.	Edinburgh Holiday.
,, 23.	Fri.	Preliminary and Bursary Examinations may begin. Time-Tables will be given in CALENDAR for 1898-9, and in the Regulations issued separately.

Calendar for the Academic Year 1898-99.

OCTOBER 1898.						
S		2	9	16	23	30
M		3	10	17	24	31
Tu		4	11	18	25	
W		5	12	19	26	
Th		6	13	20	27	
Fr		7	14	21	28	
Sa	1	8	15	22	29	

NOVEMBER 1898.						
S		6	13	20	27	
M		7	14	21	28	
Tu	1	8	15	22	29	
W	2	9	16	23	30	
Th	3	10	17	24		
Fr	4	11	18	25		
Sa	5	12	19	26		

DECEMBER 1898.						
S		4	11	18	25[1]	
M		5	12	19	26	
Tu		6	13	20	27	
W		7	14	21	28	
Th	1	8	15	22	29	
Fr	2	9	16	23	30	
Sa	3	10	17	24	31	

JANUARY 1899.						
S		1	8	15	22	29
M		2	9	16	23	30
Tu		3	10	17	24	31
W		4	11	18	25	
Th		5	12	19	26	
Fr		6	13	20	27	
Sa		7	14	21	28	

FEBRUARY 1899.						
S		5	12	19	26	
M		6	13[2]	20	27	
Tu		7	14	21	28	
W	1	8	15	22		
Th	2	9	16	23		
Fr	3	10	17	24		
Sa	4	11	18	25		

MARCH 1899.						
S		5	12	19	26	
M		6	13	20	27	
Tu		7	14	21	28	
W	1	8	15	22	29	
Th	2	9	16	23	30	
Fr	3	10	17	24	31[3]	
Sa	4	11	18	25		

APRIL 1899.						
S		2	9	16	23	30
M		3	10	17[4]	24	
Tu		4	11	18	25	
W		5	12	19	26	
Th		6	13	20	27	
Fr		7	14	21	28	
Sa	1	8	15	22	29	

MAY 1899.						
S		7	14	21	28	
M	1	8	15	22	29	
Tu	2	9	16	23	30	
W	3	10	17	24	31	
Th	4	11	18	25		
Fr	5	12	19	26		
Sa	6	13	20	27		

JUNE 1899.						
S		4	11	18	25	
M		5	12	19	26	
Tu		6	13	20	27	
W		7	14	21	28	
Th	1	8	15	22	29	
Fr	2	9	16	23	30	
Sa	3	10	17	24		

JULY 1899.						
S		2	9	16	23	30
M		3	10	17	24	31
Tu		4	11	18	25	
W		5	12	19	26	
Th		6	13	20	27	
Fr		7	14	21	28	
Sa	1	8	15	22	29	

AUGUST 1899.						
S		6	13	20	27	
M		7	14	21	28	
Tu	1	8	15	22	29	
W	2	9	16	23	30	
Th	3	10	17	24	31	
Fr	4	11	18	25		
Sa	5	12	19	26		

SEPTEMBER 1899.						
S		3	10	17	24	
M		4	11	18[4]	25	
Tu		5	12	19	26	
W		6	13	20	27	
Th		7	14	21	28	
Fr	1	8	15	22	29	
Sa	2	9	16	23	30	

[1] Christmas.
[2] Holiday in Faculty of Arts.
[3] Good Friday.
[4] Edinburgh Holiday.

ADDRESSES OF THE PRINCIPAL, PROFESSORS, EMERITI AND RESIGNED PROFESSORS, AND UNIVERSITY LECTURERS.

I.—Principal and Professors.

Principal Sir William Muir, Dean Park House.
Professor Annandale, 34 Charlotte Square.
,, Armstrong, The University.
,, Baldwin Brown, 20 Lansdowne Crescent.
,, Bayley Balfour, Inverleith House.
,, Crum Brown, 8 Belgrave Crescent.
,, Butcher, 27 Palmerston Place.
,, Calderwood, Craigrowan, 7 Napier Road, Merchiston.
,, Charteris, Cameron House, Dalkeith Road.
,, Chiene, 26 Charlotte Square.
,, Chrystal, 5 Belgrave Crescent.
,, Copeland, The Observatory, Blackford Hill.
,, Eggeling, 15 Hatton Place, Grange.
,, Ewart, Penicuik.
,, Flint, Johnstone Lodge, Craigmillar Park.
,, Fraser, 13 Drumsheugh Gardens.
,, Geikie, 31 Merchiston Avenue.
,, Sir Ludovic Grant, Bart., 29 India Street.
,, Greenfield, 7 Heriot Row.
,, Hardie, 4 Chalmers Crescent.
,, Kennedy, 9 Fountainhall Road.
,, Kirkpatrick, 5 Murrayfield.
,, Laurie, 22 George Square.
,, Sir Henry D. Littlejohn, 24 Royal Circus.
,, Mackinnon, 26 Blacket Place.
,, Mackintosh, 2 Drummond Place.
,, Nicholson, 3 Belford Park.
,, Niecks, 22 Dick Place.
,, Prothero, 2 Eton Terrace.
,, Rankine, 23 Ainslie Place.
,, Rutherford, 14 Douglas Crescent.
,, Saintsbury, Murrayfield House.

Professor Seth, 16 Church Hill.
„ Simpson, 52 Queen Street.
„ Sir Thomas Grainger Stewart, 19 Charlotte Square.
„ Tait, 38 George Square.
„ Taylor, 6 Greenhill Park.
„ Sir Wm. Turner, 6 Eton Terrace.
„ Wallace, 5 Mansfield Place.
„ Wood, 16 Buckingham Terrace.

II.—Professors Emeriti.

George James Allman, LL.D., M.D., formerly Professor of Natural History; Ardmore, Parkstone, Dorset.

Alexander Campbell Fraser, D.C.L., LL.D., formerly Professor of Logic and Metaphysics; Gorton, Hawthornden, Midlothian.

Sir Douglas Maclagan, formerly Professor of Medical Jurisprudence and Public Health, 28 Heriot Row, Edinburgh.

Norman Macpherson, LL.D., formerly Professor of Scots Law: 6 Buckingham Terrace, Edinburgh.

David Masson, LL.D., formerly Professor of Rhetoric and English Literature, Gowanlea, Juniper Green, Midlothian.

Sir Herbert Stanley Oakeley, D.C.L., LL.D., Mus. D., formerly Professor of Music; 16 Suffolk Street, London, S.W.

Charles Piazzi Smyth, LL.D., formerly Professor of Practical Astronomy; Clova, Ripon.

III.—Professors Resigned.

Theodor Aufrecht, M.A., Ph.D., formerly Professor of Sanskrit: The University, Bonn.

Sir Archibald Geikie, LL.D., formerly Professor of Geology: Museum of Geology, Jermyn Street, London.

Right Hon. Lord Lister, LL.D., M.D., formerly Professor of Clinical Surgery; 12 Park Crescent, Portland Place, London, W.

Æneas James George Mackay, LL.D., Sheriff of Fife, Advocate, formerly Professor of History; 7 Albyn Place, Edinburgh.

Right Hon. Lord Playfair, LL.D., formerly Professor of Chemistry; 68 Onslow Gardens, South Kensington, London.

Robert Wallace, D.D., M.P., formerly Professor of Church History ; 50 Finborough Road, London, S.W.

IV.—University Lecturers.

Andrew P. Aitken, D.Sc., 57 Great King Street.
Colonel F. Bailey, R.E., 7 Drummond Place.
J. Beard, D.Sc., Ph.D., 93 Comely Bank Avenue.
George A. Berry, M.B., C.M., 31 Drumsheugh Gardens.
G. W. Burnet, M.A., B.L., 46 Northumberland Street.
Edmond W. Carlier, M.D., 39 Morningside Drive.
James Carmichael, M.D., 22 Northumberland Street.
Thomas S. Clouston, M.D., Tipperlinn House, Morningside Place.
John James Cook, M.A., LL.B., 42 Northumberland Street.
Leonard Dobbin, Ph.D., 7 Cobden Road.
Charles Douglas, M.A., D.Sc., 12 Bruntsfield Crescent.
John Smith Flett, M.A., B.Sc., M.B., C.M., University.
William Fream, LL.D., B.Sc., The Vinery, Downton, Salisbury.
Robert P. Hardie, M.A., 4 Chalmers Crescent.
David Hepburn, M.D., 5 Marchhall Crescent.
Walter Hume Kerr, M.A., B.Sc., Viewfield, Juniper Green.
Cargill G. Knott, M.A., D.Sc., 42 Upper Gray Street.
Hugh Macmillan, D.D., LL.D. (Gunning Lecturer).
Hugh Marshall, D.Sc., 131 Warrender Park Road.
James Mill, M.A., 25 Warrender Park Road.
Robert Muir, M.D., 20 Hartington Place.
William Peddie, D.Sc., 2 Cameron Park.
John Playfair, M.D., 5 Melville Crescent.
Charles Sarolea, Ph.D., D.Litt., 5 Blantyre Terrace.
Otto Schlapp, 146 Morningside Road.
William Cameron Sillar, M.B., B.Sc., 46 George Square.
G. Gregory Smith, M.A., University.
William G. Smith, B.Sc., Ph.D., Royal Botanic Gardens.
Professor Tiele, Leyden (Gifford Lecturer in Natural Theology).
Alexander Douglas Thomson, M.A., D.Litt., 86 Marchmont Road.
Charles Tweedie, M.A., B.Sc., University.

University Officers.

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Chancellor.

Date of Institution.		Appointed
1859.	RIGHT HON. ARTHUR JAMES BALFOUR, M.P., D.C.L., LL.D.	1891

Vice-Chancellor.

1859.	SIR WILLIAM MUIR, K.C.S.I., D.C.L., LL.D., Ph.D.	1885

Rector.

1859.	THE RIGHT HON. LORD BALFOUR OF BURLEIGH, LL.D.	1896

Principal.

1582.	SIR WILLIAM MUIR, K.C.S.I., D.C.L., LL.D., Ph.D.	1885

Representative in Parliament.

1868.	SIR WILLIAM OVEREND PRIESTLEY, K.B., M.D., LL.D.	1896

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University Court.

President—THE RECTOR, *Ex officio.*

THE PRINCIPAL	*Ex officio.*			
RT. HON. ANDREW M'DONALD, Lord Provost of Edinburgh	*Ex officio.*			
ÆNEAS J. G. MACKAY, LL.D., Advocate	Assessor, nominated by Chancellor			1891
THE HON. LORD STORMONTH DARLING, LL.D.	Do.	nominated by Rector		1887
JAMES COLSTON	Do.	elected by Town Council		1886
PATRICK HERON WATSON, M.D., LL.D.	Do.	elected by General Council		1887
J. HOPE FINLAY, W.S.	Do.	do.	do.	1893
A. TAYLOR INNES, M.A., Advocate.	Do.	do.	do.	1893
JOSEPH BELL, M.D.	Do.	do.	do.	1895
SIR WILLIAM TURNER, M.B., D.C.L., LL.D., Professor of Anatomy	Do.	elected by Senatus		1889
ALEXANDER CRUM BROWN, M.D., D.Sc., Professor of Chemistry	Do.	do.	do.	1889
SAMUEL HENRY BUTCHER, LL.D., Litt.D., Professor of Greek	Do.	do.	do.	1891
HENRY CALDERWOOD, LL.D., Professor of Moral Philosophy	Do.	do.	do.	1892

Secretary—PROFESSOR TAYLOR, D.D.
Factor and Law Agent—HENRY COOK, W.S.
Auditor—THOMAS GOLDIE DICKSON, C.A.
Clerk—THOMAS GILBERT.
Assistant Clerk—JAMES DOWIE.
Secretary's Clerk—GEORGE CAMPBELL.

Curators of Patronage.

		Appointed.
PRINCIPAL SIR WILLIAM MUIR	Elected by University Court	1887
RIGHT HON. J. P. B. ROBERTSON, LL.D., Lord Justice-General	Elected by do.	1896
PATRICK HERON WATSON, M.D., LL.D.	Elected by do.	1891
RT. HON. ANDREW M'DONALD, Lord Provost	Elected by Town Council	1895
SIR THOS. CLARK, Bart.	Elected by do.	1886
SIR JAS. ALEXANDER RUSSELL, LL.D.	Elected by do.	1891
GEO. AULDJO JAMIESON, C.A.	Elected by do.	1892

Secretary—R. HERBERT JOHNSTON, W.S., 66 Frederick Street.

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Senatus Academicus.

President—THE PRINCIPAL.

Secretary—Professor Sir LUDOVIC GRANT, Bart., B.A.

FACULTY OF ARTS.

Dean—Professor CHRYSTAL, LL.D.

Date of Institution.	Chairs.	Professors.	Appointed.	Patrons.
1760	**Rhetoric and English Literature**	GEO. SAINTSBURY, M.A.	1895	Crown.
1583	**Humanity**	WILLIAM ROSS HARDIE, M.A.	1895	Lds. of Ses., Cur., Fac. of Adv., and W.S. Soc.[1]
1583	**Greek**	SAMUEL HENRY BUTCHER, LL.D., Litt.D.	1882	Curators.
1642	**Hebrew and Semitic Languages**	ARCH. ROBT. STIRLING KENNEDY, B.D., D.D.	1895	Curators.
1862	**Sanskrit and Comparative Philology**[2]	JULIUS EGGELING, Ph.D.	1875	Crown.
1882	**Celtic Languages, Literature, History, and Antiquities**[3]	DON. MACKINNON, M.A.	1882	Curators.
1583	**Mathematics**	GEO. CHRYSTAL, LL.D.	1879	Curators.
1583	**Natural Philosophy**	PETER GUTHRIE TAIT, M.A., D.Sc.	1860	Curators.
1583	**Logic & Metaphysics**	ANDREW SETH, LL.D.	1891	Curators.
1583	**Moral Philosophy**	HY. CALDERWOOD, LL.D.	1868	Curators.
1719	**History**	JOHN KIRKPATRICK, LL.B., LL.D.	1881	Fac. of Adv., & Cur.
1893	**History**	GEORGE WALTER PROTHERO, M.A., D.Litt.	1894	University Court.
1871	**Commercial & Political Economy & Mercantile Law**[4]	JOSEPH SHIELD NICHOLSON, M.A., D.Sc.	1880	Cur., & Merch. Co.

[1] The Judges of the Court of Session nominate two Delegates, the Curators two, the Faculty of Advocates one, and the Society of Writers to the Signet one. These Delegates appoint the Professor, who receives his Commission from the Curators.

[2] This Chair was originally endowed by John Muir, LL.D. (Edin.), D.C.L. (Oxon.), late of the Bengal Civil Service, and by a Parliamentary vote.

[3] Originally endowed with a sum of £14,000, raised by public subscription.

[4] This Chair was endowed in 1871 by the Merchant Company of Edinburgh, and other Governors of George Watson's and Daniel Stewart's Hospitals.

Date of Institution.	Chairs.	Professors.	Appointed.	Patrons.
1879	**Fine Art**[1] (Watson Gordon Chair).....	GERARD BALDWIN BROWN, M.A.	1880	Univ. Ct., Pres. R. Scott. Acad.
1876	**Theory, History, and Practice of Education**[2]	SIMON SOMERVILLE LAURIE, LL.D.	1876	Bell Trustees.

FACULTY OF SCIENCE.

Dean—Professor GEIKIE, D.C.L., LL.D.

1583	**Mathematics**.....	GEORGE CHRYSTAL, M.A., LL.D.	1879	Curators.
1583	**Natural Philosophy**..	PETER GUTHRIE TAIT, M.A., D.Sc.	1860	Curators.
1786	**Astronomy**.....	RALPH COPELAND, Ph.D.	1889	Crown.
1713	**Chemistry**.....	ALEX. CRUM BROWN, M.D., D.Sc.	1869	Curators.
1767	**Natural History**.....	JAMES COSSAR EWART, M.D.	1882	Crown.
1676	**Botany**.....	ISAAC BAYLEY BALFOUR, M.D., D.Sc.	1888	Curators.
1705	**Anatomy**.....	Sir WILLIAM TURNER, M.B., D.C.L., LL.D.	1867	Curators.
1685	**Physiology**.....	WILLIAM RUTHERFORD, M.D.	1874	Curators.
1871	**Geology**[3].....	JAMES GEIKIE, D.C.L., LL.D.	1882	Crown.
1868	**Engineering**[4].....	GEO. FREDERICK ARMSTRONG, M.A., C.E.	1885	Crown.
1790	**Agriculture & Rural Economy**[5]	ROBERT WALLACE.....	1885	Lds. of Sess., Cur. & Univ. Ct.

FACULTY OF DIVINITY.

Dean—Professor TAYLOR, D.D.

1583	**Divinity**.....	ROBERT FLINT, D.D.....	1876	Curators.
1846	**Biblical Criticism & Biblical Antiquities**	ARCHIBALD HAMILTON CHARTERIS, D.D.	1868	Crown.
1694	**Ecclesiastical History**	MALCOLM CAMPBELL TAYLOR, D.D.	1877	Crown.
1642	**Hebrew and Semitic Languages**	ARCHD. ROBT. STIRLING KENNEDY, B.D., D.D.	1895	Curators.

FACULTY OF LAW.

Dean—Professor Sir LUDOVIC GRANT, Bart., B.A.

1707	**Public Law**.....	Sir LUDOVIC GRANT, Bart., B.A.	1890	Crown.
1710	**Civil Law**.....	JAS. MACKINTOSH, B.A.	1893	Fac. of Adv., and Cur.[6]
1719	**History (Constitutional, etc.)**	JOHN KIRKPATRICK, LL.B., LL.D.	1881	Do.[6]
1722	**Scots Law**.....	JOHN RANKINE, LL.D.	1888	Do.[6]

[1] This Chair was endowed by Mr H. G. and Miss Frances Watson.

[2] This Chair was originally endowed by the Trustees of the late Dr A. Bell, with a sum of £6000, to which a further sum of £4500 out of the Bell Fund was added by the Educational Endowments Commission in 1887.

[3] This Chair was originally endowed in 1871 by a sum of £6000 mortified by Sir Roderick Impey Murchison, Bart., and by an annual vote by Parliament.

[4] This Chair was endowed in 1868 by Sir David Baxter, and by an annual vote of Parliament.

[5] The Professor is elected by nine Delegates, three chosen by the Judges of the Court of Session, three by the Curators, and three by the University Court.

[6] For each of these Chairs the Faculty of Advocates send to the Curators a leet of two, of whom the Curators must choose one.

Date of Institution.	Chairs.	Professors.	Appointed.	Patrons.
1807	**Forensic Medicine**....	Sir HENRY DUNCAN LITTLEJOHN, M.D.	1897	Crown.
1825	**Conveyancing**[1].....	JOHN PHILP WOOD, W.S.	1891	Cur., Dep.-Kpr. and W.S. Soc.[2]
1871	**Commercial and Political Economy and Mercantile Law**	JOSEPH SHIELD NICHOLSON, M.A., D.Sc.	1880	Cur., & Merch. Co.

FACULTY OF MEDICINE.

Dean—Professor FRASER, M.D., LL.D., F.R.S.,

1713	**Chemistry**.....	ALEX. CRUM BROWN, M.D.	1869	Curators.
1767	**Natural History**.....	JAMES COSSAR EWART, M.D.	1882	Crown.
1676	**Botany**.....	BAYLEY BALFOUR, M.D.	1888	Curators.
1705	**Anatomy**.....	Sir WM. TURNER, M.B.	1867	Curators.
1685	**Physiology**.....	WM. RUTHERFORD, M.D.	1874	Curators.
1831	**Pathology**.....	WILLIAM SMITH GREENFIELD, M.D.	1881	Curators.
1768	**Materia Medica**.....	THOMAS RICHARD FRASER, M.D.	1877	Curators.
1685	**Medicine**.....	Sir THOMAS GRAINGER STEWART, M.D.	1876	Curators.
1831	**Surgery**.....	JOHN CHIENE, M.D.....	1882	Curators.
1726	**Midwifery**.....	ALEX. RUSSELL SIMPSON, M.D.	1870	Curators.
1807	**Forensic Medicine**.....	Sir HENRY DUNCAN LITTLEJOHN, M.D.	1897	Crown.
1803	**Clinical Surgery**.....	THOS. ANNANDALE, M.D.	1877	Crown.
1741	**Clinical Medicine**.....	Sir THOMAS GRAINGER STEWART, M.D.; THOMAS RICHARD FRASER, M.D.; WILLIAM SMITH GREENFIELD, M.D. Diseases of Women—ALEXANDER RUSSELL SIMPSON, M.D.		

FACULTY OF MUSIC.

Dean—Professor NIECKS. The PRINCIPAL, *ex officio*.

Professor KIRKPATRICK, appointed by the Senatus.

1839	**Reid Chair of Music**..	FREDERICK NIECKS.	1891	University Court.

UNIVERSITY LECTURERS.

	Subjects.	Lecturers.		
1892	**Rhet. and English Lit.**	G. GREGORYSMITH, M.A.	1892	University Court.
1892	**Latin**	JAMES MILL, M.A.....	1896	Do.
1892	**Greek**	A. DOUGLAS THOMSON, M.A., D.Litt.	1892	Do.
1892	**Mathematics**	CHARLES TWEEDIE, M.A., B.Sc.	1892	Do.
1892	**Natural Philosophy**	WILLIAM PEDDIE, D.Sc.	1892	Do.
1892	**Applied Mathematics**	CARGILL G. KNOTT, M.A., D.Sc.	1892	Do.

[1] Endowed by the Society of Writers to the Signet.

[2] The Election is by—(1) Two Delegates from the Curators; (2) Two from the Society of Writers to the Signet; and (3) The Deputy-Keeper of the Signet.

Date of Institution.	Subjects.	Lecturers.	Appointed.	Patrons.
1892	**Logic & Metaphysics**	Robert P. Hardie, M.A.	1892	University Court.
1892	**Moral Philosophy**.....	Charles Douglas, M.A., D.Sc.	1892	Do.
1894	**French Lang., Lit., and Romance Philology**	Charles Sarolea, Ph.D., D.Litt.	1894	Do.
1894	**German Lang., Lit., and Teutonic Philology**	Otto Schlapp.	1894	Do.
1894	**Chemical Theory**.....	Leonard Dobbin, Ph.D.	1894	Do.
1894	**Plant Physiology**.....	W. G. Smith, B.Sc., Ph.D.	1894	Do.
1894	**Mineralogy and Crystallography**.....	Hugh Marshall, D.Sc.	1894	Do.
1894	**Petrology**.....	John Smith Flett, M.A., B.Sc., M.B., C.M.	1894	Do.
1894	**Advanced Physiology**	Edward W. Carlier, M.D., B.Sc.	1894	Do.
1895	**Geometrical and Mechanical Drawing**	Walter Hume Kerr, M.A., B.Sc.	1895	Do.
1894	**Agricultural Chemistry**.....	A. P. Aitken, D.Sc.	1894	Do.
1889	**Forestry**.....	Colonel F. Bailey, R.E.	1892	Do.
1891	**Agricultural Entomology**	William Evans, F.F.A., B.Sc.	1891	Do.
1887	**Gifford Lecturer on Natural Theology**	Professor C. P. Tiele of Leyden	1895	Do.
1869	**Gunning Lecturer**.....	Hugh Macmillan, D.D., LL.D.	1894	Do.
1894	**International Private Law**.....	G. W. Burnet, M.A., B.L.	1894	Do.
1884	**Procedure & Evidence**	John James Cook, M.A., LL.B.	1895	Do.
1879	**Mental Diseases**.....	Thos. S. Clouston, M.D.	1879	Do.
1885	**Diseases of the Eye**....	George A. Berry, M.B., C.M.	1896	Do.
1885	**Clinical Instruction on Diseases of Children**	Jas. Carmichael, M.D. John Playfair, M.D.	1885 1885	Do. Do.
1885	**Embryology and Vertebrate Zoology**	John Beard, D.Sc.	1894	Do.
1894	**Regional Anatomy**....	David Hepburn, M.D.	1896	Do.
1894	**Experimental Pharmacology**.....	William C. Sillar, M.B., B.Sc.	1894	Do
1894	**Pathological Bacteriology**.....	Robert Muir, M.D.	1894	Do.

UNIVERSITY ASSISTANTS.

IN THE FACULTY OF ARTS.

Rhetoric and Eng. Liter.....	G. Gregory Smith, M.A.
Humanity.....	James Mill, M.A.
Greek.....	A. Douglas Thomson, M.A., D.Litt.
Hebrew and Semitic Languages	William B. Stevenson, M.A., B.D.
Mathematics.....	Charles Tweedie, M.A., B.Sc.
Natural Philosophy.....	William Peddie, D.Sc.
Do. (Mechanical)...	Thomas Lindsay.
Do. (Under Nichol Foundation).	Alexander Shand.
Logic and Metaphysics.....	R. P. Hardie, M.A.
Moral Philosophy.....	Charles Douglas, M.A., D.Sc.

IN THE FACULTY OF SCIENCE.

Subjects.	Lecturers.
Geology	JOHN S. FLETT, M.A., B.Sc., M.B., C.M.
Engineering	W. H. KERR, M.A., B.Sc.
Do., Demonstrator	W. G. RENNIE, B.Sc.

IN THE FACULTY OF DIVINITY.

Divinity	Rev. ALEXANDER HORN, B.D.
Hebrew and Semitic Languages	WILLIAM B. STEVENSON, M.A., B.D.

IN THE FACULTY OF LAW.

Civil Law	J. M. IRVINE, M.A., B.Sc., LL.B.
Scots Law	ROBERT D. PHILLIP.
Conveyancing	JOHN M'MURRAY.

IN THE FACULTY OF MEDICINE.

Chemistry	LEONARD DOBBIN, Ph.D.; HUGH MARSHALL D.Sc.; WILLIAM WHITE TAYLOR, M.A., B.Sc.; J. P. LONGSTAFF.
Zoology	J. BEARD, D.Sc.: GREGG WILSON, M.A. B.Sc., Ph.D.
Botany	JAS. ADAM TERRAS, B.Sc.; J. H. BURRAGE, B.A.
Anatomy	DAVID HEPBURN, M.D.; E. H. FRASER, M.B.; RHODES HAYGARTH, M.B., C.M.; and DAVID WATERSTON, M.B., C.M.
Physiology	E. W. CARLIER, M.D., B.Sc.; T. H. MILROY, M.B., C.M.; A. C. STURROCK, M.B., C.M.
Pathology	ROBT. MUIR, M.A., M.D.; D. A. WELSH, M.B., B.Sc. *Laboratory Assistant*—RICHARD MUIR.
Materia Medica	WM. C. SILLAR, M.B., C.M., B.Sc., and ANDREW R. WILSON, M.B., C.M.
Medicine	J. PURVES STEWART, M.A., M.B., C.M.
Clinical Medicine Tutors	HARRY RAINY, M.B., C.M.; D. A. WELSH, M.D, B.Sc.; and GEORGE ELDER, M.D.
Surgery	HAROLD J. STILES, M.B., C.M.; JAMES GRAY, M.B., C.M.
Midwifery	WILLIAM FORDYCE, M.B., C.M.
Forensic Medicine	CHARLES HUNTER STEWART, M.B., C.M., D.Sc.; J. BUCHANAN YOUNG, M.B., C.M., D.Sc.
Clinical Surgery Tutor	JOHN WHEELER DOWDEN, M.B., C.M.

EXAMINERS.

FOR PRELIMINARY EXAMINATION.

The Professors of or Lecturers on the several subjects, and the following additional Examiners:—

Subjects.	Examiners.	Appointed.	Patrons.
English	STEWART ALAN ROBERTSON, M.A.	1895	University Court.
Latin } **Greek** }	JAMES CRUICKSHANK SMITH, M.A. Edin., B.A. Oxon.	1894	Do.
Mathematics	DAVID BEVERIDGE MAIR, M.A. Edin., B.A. Cantab.	1893	Do.
French } **German** }	FREDERICK P. WALTON, M.A., LL.B.	1895	Do.
Dynamics	DAVID BEVERIDGE MAIR, M.A. Edin., B.A. Cantab.	1893	Do.

FOR DEGREES, &c.

I.—IN THE FACULTY OF ARTS.

The Professors of or Lecturers on the several Subjects, and the following additional Examiners:—

1. LANGUAGE AND LITERATURE.

Subjects.	Examiners.	Appointed.	Patrons.
Latin, Greek	JAMES CRUICKSHANK SMITH, M.A.	1894	University Court.
English	STEWART ALAN ROBERTSON, M.A.	1895	Do.
French, German	FREDERICK P. WALTON, M.A., LL.B.	1895	Do.
Sanskrit	ARTHUR A. MACDONELL, M.A.	1896	Do.
Hebrew and Semitic Languages	ARTHUR P. SYM, M.A., B.D.	1895	Do.
Classical Archæology	ALEX. S. MURRAY, LL.D.	1895	Do.
Celtic	DON. MASSON, M.A., M.D.	1896	Do.

2. MENTAL PHILOSOPHY.

Logic and Metaphysics, Moral Philosophy	JAS. L. M'INTYRE, M.A., D.Sc.	1895	Do.
Political Economy	JOHN ROW-FOGO	1897	Do.
Education	W. L. CARRIE, M.A.	1896	Do.
Philosophy of Law	J. ROBERTON CHRISTIE, LL.B.	1895	Do.

3. SCIENCE.

Mathematics, Natural Philosophy	D. BEVERIDGE MAIR, M.A. Edin., B.A. Cantab.	1893	Do.
Astronomy	W. E. PLUMMER, M.A.	1895	Do.
Chemistry	W. H. PERKIN, Ph.D.	1896	Do.
Zoology	ARTHUR E. SHIPLEY, M.A.	1895	Do.
Botany	ROBERT TURNBULL, B.Sc.	1897	Do.
Geology	JOHN HORNE	1895	Do.

4. HISTORY AND LAW.

History	JOHN DOWNIE, M.A.	1895	Do.
Archæology and Art (History of)	WALTER ARMSTRONG, B.A. (Oxon.).	1897	Do.
Constitutional Law and History, Roman Law, Public Law	J. ROBERTON CHRISTIE, LL.B.	1895	Do.

II.—SCIENCE.

1. PURE SCIENCE.

The Professors of and Lecturers on the several subjects, and the additional Examiners in Mathematics, Natural Philosophy, Zoology, Botany, Chemistry, Astronomy, Anatomy, Physiology, and Geology.

2. ENGINEERING.

The Professors of and Lecturers on the several subjects, the additional Examiners in Mathematics, Natural Philosophy, and Chemistry, and in

Engineering	DAVID M. WESTLAND, C.E.	1897	University Court.

3. PUBLIC HEALTH.

The Professors of and Lecturers on the several subjects, and the following additional Examiners :—

Subjects.	Examiners.	Appointed.	Patrons.
Physics	WILLIAM HARVEY, LL.B.	1893	University Court.
Laboratory Work	JOHN ROBERTSON, M.D., B.Sc.	1897	Do.
Medicine in its bearings on Public Health	JAMES O. AFFLECK, M.D.	1894	Do.
Sanitation, Sanitary Law, and Vital Statistics	R. BRUCE LOW, M.D.	1897	Do.

4. AGRICULTURE.

The Professors of and Lecturers on the several subjects, and the following additional Examiners :—

The additional Examiners in Mathematics, Chemistry, Botany, Natural History, Geology, and Political Economy, and in

Agriculture	T. H. MIDDLETON, B.Sc.	1896	University Court.
Veterinary Hygiene	FINLAY DUN	1896	Do.
Chemistry as applied to Agriculture	R. GREIG SMITH, B.Sc.	1896	Do.
Political Economy	JOHN ROW-FOGO	1897	Do.
Forestry	WM. SOMERVILLE, B.Sc., D.Œcon.	1896	Do.
Agricultural Entomology	E. A. ORMEROD, F.E.S.	1896	Do.

III.—IN THE FACULTY OF DIVINITY.

The Professors in the Faculty of Divinity, and the following additional Examiners :—

GEORGE GARDINER, B.D.	1895	University Court.
ARTHUR P. SYM., B.D.	1895	Do.

IV.—IN THE FACULTY OF LAW.

The Professors of, and Lecturers on, the several subjects, and the following additional Examiners :—

Scots Law, Conveyancing, and Forensic Medicine	ARTHUR T. GLEGG, LL.B.	1896	University Court.
Roman, Public, and Constitutional Law	J. ROBERTON CHRISTIE, LL.B.	1895	Do.
Political Economy	JOHN ROW-FOGO	1897	Do.

V.—IN THE FACULTY OF MEDICINE.

The Professors in the Faculty of Medicine, and the following additional Examiners:—

Botany	ROBERT TURNBULL, B.Sc.	1897	University Court.
Zoology	ARTHUR E. SHIPLEY, M.A.	1895	Do.
Physics	WILLIAM HARVEY, LL.B.	1892	Do.
Chemistry	W. H. PERKIN, Ph.D.	1896	Do.
Anatomy	JOHNSON SYMINGTON, M.D.	1896	Do.
Physiology	DE BURGH BIRCH, M.D.	1897	Do.
Materia Medica	C. D. F. PHILLIPS, M.D.	1896	Do.
Pathology	G. SIMS WOODHEAD, M.D.	1896	Do.
Medical Jurisprudence and Public Health	R. BRUCE LOW, M.D.	1897	Do.
Surgery	J. CRAWFORD RENTON, M.D.	1896	Do.
Clinical Surgery	JOHN DUNCAN, M.D.	1896	Do.
	J. M. COTTERILL, M.B., C.M.	1896	Do.
	FREDERICK PAGE, M.D.	1896	Do.
Medicine	GEORGE A. GIBSON, M.D.	1897	Do.
Clinical Medicine	J. O. AFFLECK, M.D.	1896	Do.
Midwifery	JAMES H. FERGUSON, M.D.	1897	Do.

VI.—IN THE FACULTY OF MUSIC.

The Professor of Music and Sir ALEXANDER C. MACKENZIE.

FOR SCHOOLMASTER'S DIPLOMA.

The Professor of Education and MAURICE PATERSON, B.A., LL.D. 1889.

FOR TITLE OF LITERATE IN ARTS.

The Professors of and Lecturers on the several subjects, and the Examiners for Degrees in Arts.

University Librarian.—HUGH ALEXANDER WEBSTER.

Assistant Librarians.—ALEXANDER ANDERSON; DAVID CUTHBERTSON; CHARLES MARTIN; WILLIAM WRIGHT; GEORGE TAIT; JAMES H. S. GREGORY, *at University New Buildings.*

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KEEPERS OF MUSEUMS.

Anatomical Museum	Professor Sir WM. TURNER.
Do. Assistant Keeper	JAMES SIMPSON.
Museum of Natural History	Professor EWART.

—o—

Clerk of Senatus	THOMAS GILBERT.
Assistant Clerks	JAMES DOWIE, JOHN STIRTON, THOMAS F. HARLEY.
Clerk of Works	ALLAN E. L. CLARK.
Janitor	JOHN CHAPMAN.
Warders	JAMES DONALDSON, JAMES TWEEDDALE.

GENERAL COUNCIL.

President	The Right Hon. ARTHUR JAMES BALFOUR, M.P., D.C.L., &c., Chancellor of the University.
Vice-Presidents	The Rector, The Principal, The Chancellor's Assessor, The Rector's Assessor.
Representative in Parliament	Sir WILLIAM OVEREND PRIESTLEY, K.B., M.D., LL.D.
Convener of Business Committee	J. CAMPBELL LORIMER, LL.B., Advocate.
Interim Convener of Ordinances Committee	J. CAMPBELL LORIMER, LL.B.
Convener of Finance Committee	DAVID D. BUCHAN, LL.B., S.S.C.
Secretary and Registrar	THOMAS GILBERT.

Constitution of the University.

THE University of Edinburgh was originally the "College of Edinburgh" or "The Town's College," founded in 1583 by the Town Council of Edinburgh, under general powers granted by the Charter of King James VI., dated 14th April 1582. No Charter of foundation is extant; but from the first the College possessed the privilege of conferring degrees. This privilege was ratified by the "Act of Confirmation," passed in 1621, which secured to the "College of James VI." (as it had come to be called) all the rights, immunities, and privileges enjoyed by the Universities of Scotland. This ratification was renewed in the Treaty of Union between England and Scotland, and in the Act of Security. Gradually, in Acts of General Assembly, of Town Council, and of Parliament, the "College of James VI." came to be styled "The University of Edinburgh"; but it remained under the control and patronage of the Town Council down to 1858, when, by the Universities Act, all the Universities of Scotland received new and autonomous constitutions.

The University is a Corporation consisting of the Chancellor, Rector, Principal, Professors, Registered Graduates and Alumni, and Matriculated Students; and from 1858 to 1890 its government was vested in the Senatus Academicus (consisting of the Principal and the Professors), subject to the review and control of the University Court.

By the Universities (Scotland) Act 1889, the University Court was constituted a body corporate, to which the whole property belonging to the University at the passing of the Act was transferred, with full power of administration.

The Senatus, as heretofore, regulates the teaching and discipline of the University, subject to the provisions of the Universities Acts of 1858 and 1889.

CHANCELLOR.

The Chancellor is elected by the General Council for life. Changes in the ordinances and in University arrangements, proposed or approved by the University Court, must receive his

sanction. Degrees are conferred by him, or by the Vice-Chancellor. The Chancellor is President of the General Council, and nominates an Assessor in the University Court. Appointments:—

Right Hon. Lord Brougham, 1859.
Right Hon. John Inglis, D.C.L., LL.D., 1868.
Right Hon. ARTHUR J. BALFOUR, M.P., D.C.L., LL.D., &c., 1891.

VICE-CHANCELLOR.

The Vice-Chancellor, nominated by the Chancellor, may, in absence of the Chancellor, confer Degrees, but cannot discharge any other of the Chancellor's duties. In the Vice-Chancellor's absence Degrees are conferred by the Principal, or by the senior member of Senatus.

The Vice-Chancellor acts as Returning Officer at Parliamentary Elections. If there be no Vice-Chancellor at the time, the University Court appoints one to act as Returning Officer. Appointments:—

Sir D. Brewster, appointed 1860.
Sir Alexander Grant, Bart., 1868.
Sir WILLIAM MUIR, K.C.S.I., D.C.L., &c., 1885.

RECTOR.

The Rector is elected by the Matriculated Students in the University on such day in October or November as may be fixed by the University Court after consultation with the Senatus, but not later than the second Saturday in November. The term of office is three years. The next election will take place in 1899. The Rector is President of, and nominates an Assessor in, the University Court. He may, before he appoints his Assessor, confer with the Students' Representative Council. No Principal or Professor of any Scottish University is eligible. Appointments:—

Rt. Hon. W. E. Gladstone, 1859.
Thomas Carlyle, 1865.
Rt. Hon. Lord Moncreiff, 1868.
Sir W. Stirling Maxwell, Bt., 1871.
Rt. Hon. Earl of Derby, 1874.
Most Hon. Marquess of Hartington, M.P., 1877.
Rt. Hon. Earl of Rosebery, 1880.
Rt. Hon. Earl of Iddesleigh, 1883.
Most Hon. Marquess of Lothian, 1887.
Rt. Hon. George J. Goschen, M.P., LL.D., 1890.
Rt. Hon. J. P. B. Robertson, LL.D., 1893.
Rt. Hon. Lord BALFOUR OF BURLEIGH, LL.D., 1896.

REPRESENTATIVE IN PARLIAMENT.

Under Clauses 27 to 41 of the "Representation of the People (Scotland) Act," 31 & 32 Vict., cap. 48, the General Councils of the Universities of Edinburgh and St Andrews elect a Member of Parliament for these Universities.

When a poll is demanded, the votes are given by voting papers issued by the Registrar.

The appointments have been—

Sir Lyon Playfair, K.C.B., LL.D., 1868.

Rt. Hon. J. H. A. Macdonald, C.B., Q.C., LL.D., 1885, 1886.

M. T. Stormonth Darling, Q.C., 1888.

Rt. Hon. Sir Charles J. Pearson, Q.C., LL.D., 1890, 1892.

Sir WILLIAM OVEREND PRIESTLEY, K.B., M.D., LL.D., 1896.

The Parliamentary constituency for 1897 is as follows :—

Edinburgh	8091
St Andrews	1474
Total in 1897	9565

UNIVERSITY COURT.

Under the Universities Act 1858, the Court has power :—

1. To review all decisions of the Senatus, and to be a Court of Appeal from the Senatus, except as otherwise provided in the Universities Act.

2. To effect improvements in the internal arrangements of the University, after due communication with the Senatus, and with the sanction of the Chancellor; provided all such proposed improvements be submitted to the General Council for consideration.

3. To require due attention on the part of the Professors to the Regulations as to the mode of teaching and other duties imposed on the Professors.

4. To fix and regulate, from time to time, the Fees in the several Classes.

5. Upon sufficient cause shewn, and after due investigation, to censure any member of the Senatus, or to suspend him from office, and from the emoluments thereof, in whole or in part, for any period not exceeding one year, or to require him to retire on a retiring allowance, or to deprive him of office; and during the suspension of any Professor, to make provision for the teaching of his class: provided no such sentence of censure, suspension, deprivation, etc., shall have effect until approved by Her Majesty in Council.

By Sec. xix. any of the Rules and Ordinances enacted by the Universities Commissioners under the Act, may be altered or revoked by the University Court of the University to which they are applicable, but only with the written consent of the Chancellor, and with the approval of Her Majesty in Council.

By the Universities (Scotland) Act 1889, the University

Court is a body corporate with perpetual succession and a common seal; and all the property belonging to the University at the passing of the Act is now vested in that body.

By the same Act, the University Court, besides the powers conferred upon it by the Act of 1858, has power—

(1.) To administer and manage the whole revenue and property of the University, including funds mortified for bursaries and other purposes, and have all the powers necessary for the purpose.

(2.) To review any decision of the Senatus appealed against by a member of Senatus, or other member of the University having an interest, and to take into consideration all representations and reports made to it by the Senatus and by the General Council.

(3.) To review, on representation made by any of its members, or by any member of Senatus, any decision which the Senatus may come to under section seven, sub-section one, but the University Court shall not review any decision of the Senatus in a matter of discipline, except upon appeal taken either by a member of Senatus or by a member of the University directly affected.

(4.) To appoint professors whose chairs are in the patronage of the University; to appoint examiners and lecturers; and to grant recognition to the teaching of any college or individual teacher for the purposes of graduation.

(5.) To define, on application by any member of Senatus, the nature and limits of a professor's duties under his commission.

(6.) To take proceedings against a principal or professor, University lecturer, assistant, recognised teacher or examiner, or other person employed in teaching or examining, without the necessity of any one not a member of the Court appearing as prosecutor, and in such proceedings to call any member of the University to give evidence, and to require the production of documents, and to institute any inquiries it may deem necessary.

(7.) To appoint from among members of the University or others, not being members of the Senatus, one third of the members of any committee charged, by ordinance of the Commissioners, with the superintendence of any libraries or museums belonging to the University; and on representation made by any of its members, or by any member of Senatus, to review any decision which the Senatus, in the exercise of its powers, may come to in respect of the recommendations of such committee.

(8.) To appoint committees of its own number, of not less than five members, with powers to report on any business entrusted to them by the University Court, or to carry out special instructions ordered by the Court.

(9.) To elect the representative of the University on the General Medical Council, under the Medical Act 1886.

(10.) After the expiration of the powers of the Commission to found new professorships, with the approval of the Universities Committee.

After the expiration of the powers of the Commissioners, the University Court, by Section 21, has power to make new ordinances, with the approval of Her Majesty in Council:

(1.) With respect to the appropriation of the sum allotted to the University by the Commissioners out of the annual grant.

(2.) Altering or revoking ordinances framed under the Universities Act 1858, or this Act; and making new ordinances: provided that such ordinances, before being submitted to Her Majesty for approval, have been communicated by the University Court to the Senatus, to the General Council, and to the University Courts of the other Universities.

Meetings of the Court are held for ordinary business on the first Monday after the 11th of each month, except August and September, and on the first Monday after 19th January, if necessary, for hearing Registration Appeals. Other meetings may be called as the Court may direct. Special Meetings may be called by order of the Rector or the Principal, or by the Secretary on a requisition specifying the object, signed by at least three members of the Court.

The University Court holds the patronage of the Chair of Music; of the new Chair of History; in conjunction with the President of the Royal Scottish Academy, that of the Chair of Fine Art; and a share in the patronage of the Chair of Agriculture. It also elects three of the seven Curators of Patronage, and appoints the Lecturers and the Additional Examiners for Degrees.

The Court consists of—1. The Rector; 2. The Principal; 3. The Lord Provost of Edinburgh for the time being; 4. An Assessor nominated by the Chancellor; 5. An Assessor nominated by the Rector; 6. An Assessor nominated by the Lord Provost, Magistrates, and Town Council of Edinburgh; 7. Four Assessors elected by the General Council; 8. Four Assessors elected by the Senatus Academicus; 9. A number, not exceeding four, of representatives of affiliated Colleges, under section 15 (4) of the Act of 1889 (a number which, in special circumstances, may be increased).

Seven members constitute a quorum. The Rector and his Assessor continue in office for three years; but when the Chancellor or the Rector ceases to hold office, his Assessor continues to be a member of the Court until an Assessor is nominated by the new Chancellor or Rector. The other Assessors hold office for four years; and all Assessors are eligible for re-election. No Principal or Professor of any Scottish University is eligible as

Assessor to any other person or body than the Senatus. The Rector, and in his absence the Principal, presides at meetings of the Court, and in the absence of both a chairman is elected by the meeting. The person presiding at any meeting of the Court has a deliberative vote, and also a casting vote in case of equality.

An abstract of the proceedings of the Court is given in a subsequent part of the Calendar.

The names of the present Assessors are given on page 1. The names of the Assessors before 1888 will be found in the Historical Appendix to List of University Graduates, published in 1889 (page 105). Assessors since 1888—*Elected by Chancellor*, T. Graham Murray, LL.D., 1887-1891. *Elected by Senatus*, A. Campbell Fraser, D.C.L., LL.D., 1877-1891, Malcolm Campbell Taylor, D.D., 1889-1892. *Elected by Town Council*, John Clapperton, 1885-1895.

UNIVERSITIES COMMITTEE OF PRIVY COUNCIL.

The Scottish Universities Committee of the Privy Council consists of the Lord President of the Privy Council, the Secretary for Scotland; the Lord Justice-General, Lord Justice-Clerk, Lord Advocate, and the Chancellor and the Lord Rector of each of the Universities, if members of the Privy Council; one member at least of the Judicial Committee of the Privy Council; and such other member or members of the Privy Council as Her Majesty may appoint.

The powers and duties of this Committee may, subject to rules or regulations passed by Her Majesty in Council, be exercised and discharged by any three or more of the members, one of whom shall be a member of the Judicial Committee of the Privy Council or a Senator of the College of Justice in Scotland.

CURATORS OF PATRONAGE.

By the Universities Act of 1858, the patronage of seventeen Chairs, previously in the gift of the Town Council, was transferred to seven Curators—three nominated by the University Court, and

four by the Town Council. The Curators also have a share in the patronage of the Chairs of Humanity, Agriculture, Civil Law, History (and Constitutional Law), Scots Law, and Conveyancing, formerly in the gift of the Town Council, and of the Chairs of Celtic and of Political Economy, instituted after the passing of the 1858 Act. The Curators hold office for three years. The names of the present Curators are given on page 2.

REPRESENTATIVE IN GENERAL MEDICAL COUNCIL.

Under the Medical Act of 1886, the University is entitled to elect a Member of the General Medical Council, who holds office for five years. Professor Sir William Turner was elected by the Senatus in December 1886. Under the Universities Act of 1889, the University Representative is now elected by the University Court, by whom Professor Sir William Turner, M.B., D.C.L., LL.D., was elected in 1891, and re-elected in 1896.

PRINCIPAL.

The Principal, formerly elected by the Town Council, now by the Curators, holds office for life. He is the President of the Senatus Academicus; in absence of the Rector, he presides at the meetings of the University Court; and in absence of the Chancellor and Rector he presides at the Statutory Meetings of the General Council, and also at the Special Meetings, except for the election of Assessors.

Principals Elected since 1586.

1586. Robert Rollock, *previously Regent*
1599. Henry Charteris
1620. Patrick Sands
1622. Robert Boyd
1623. John Adamson
1653. Robert Leighton
1662. William Colvill
1675. Andrew Cant
1685. Alexander Monro
1690. Gilbert Rule
1703. William Carstares
1716. William Wishart
1730. William Hamilton
1732. James Smith
1736. William Wishart, *secundus*
1754. John Gowdie
1762. William Robertson
1793. George Husband Baird
1840. John Lee
1859. Sir David Brewster
1868. Sir Alexander Grant, Bart.
1885. Sir Wm. Muir, K.C.S.I.

SENATUS ACADEMICUS.

The Principal and the Professors constitute the Senatus. This body superintends and regulates the teaching and discipline of the University. The Senatus elects four Assessors in the University Court who hold office for four years. Two retire biennially, but may be re-elected; and in case of a casual vacancy, the person elected to fill it goes out of office when the person whom he succeeded would in the ordinary rotation have retired. The Senatus appoints two-thirds of the members of the Library and the Museums Committees, receives their reports, and, subject to the review of the University Court, confirms, modifies, or rejects such reports. It also elects a representative in the General Assembly of the Church of Scotland; two Managers of the Royal Infirmary; two Governors of George Heriot's Trust; two Governors of Morrison's Academy, Crieff; two Governors of the Spence Bursary Trust; one Governor of Dollar Institution; and one Governor of Stiell's Hospital, Tranent. Degrees in Arts, Science, Divinity, Law, Medicine, and Music are conferred, on the recommendation of the Senatus, by either the Chancellor, the Vice-Chancellor, the Principal, or the senior Professor present. The Principal is President of the Senatus, with a deliberative and also a casting vote; and, in his absence, the Senior Professor present acts as Chairman, also with a double vote. The Ordinary Meetings of Senatus are held on the third Saturday of October, the last Saturday of November, January, February, and March; the Saturday immediately preceding the Christmas vacation; on the last Friday of May, June, and July; on 1st August, not being a Sunday (for conferring Degrees); and in April (for Degrees) on a day fixed at the January Meeting of the preceding year. Extraordinary Meetings may be called by the Principal or by three Professors. One-third of the Senatus constitutes a quorum.

The Secretary of Senatus, among other duties, summons the Meetings, prepares the Minutes, and intimates business assigned to the Principal, the Faculties, the Boards of Studies, &c. He also administers the *Sponsio Academica* to Graduates.

FACULTIES.

The University now contains six Faculties, as constituted by Ordinance in 1893—viz., Arts, Science, Divinity, Law, Medicine, and Music. Each Faculty is presided over by a Dean, who is elected by the Professors of his Faculty, and who, among other duties, presents to the Chancellor or Vice-Chancellor the Graduands of his Faculty. The Deans are named on pp. 2, 3, and 4. The Chairs in the various Faculties are here given in chronological order. The Faculties as previously constituted are given in the CALENDAR for 1893-94, and in previous CALENDARS.

FACULTY OF ARTS.

The Faculty of Arts embraces the Chairs of Humanity (Latin), Greek, Mathematics, Logic and Metaphysics, Moral Philosophy, Natural Philosophy, Hebrew and Semitic Languages, History (two Chairs), Rhetoric and English Literature, Sanskrit and Comparative Philology, Commercial and Political Economy, Education, Fine Art, and Celtic.

REGENTS AND PROFESSORS IN THE FACULTY OF ARTS SINCE 1583.

Regents of Philosophy, 1583-1708.

[*The Regents of Philosophy taught in rotation the four classes in the Curriculum of Arts, the "Bajans," the "Semi-Bajans," the "Bachelors," and the "Magistrands," as the Students of the first, second, third, and fourth year were respectively styled. Each Regent therefore taught every subject in the Curriculum—the Regent of Humanity being subordinate to the Regent of Philosophy, and being employed as a tutor in Classics for Unmatriculated Students. In 1708 the system was changed, and separate Professors for Latin, Greek, Logic and Metaphysics, Moral Philosophy and Natural Philosophy, were substituted for the Regents. A Professorship of Mathematics had previously existed.*]

1583. Robt. Rollock, *first Regent*
1583. Duncan Nairn
1585. Charles Lumisdaill
1586. Adam Colt
1895. Alexander Scrimgeour
1587. Philip Heslop
1588. Charles Ferme or Fairholm
1589. Henry Charteris
1589. Patrick Sands
1594. George Robertson
1597. William Craig
1597. John Adamson
1598. James Knox
1598. Robert Scott
1601. Andrew Young
1603. James Reid
1604. David Munro
1606. Blase Colt
1607. James Fairley
1608. William King
1611. Andrew Stevenson
1625. Samuel Rutherford
1625. Robert Ranken
1626. Thomas Crawford
1626. John Brown
1631. Alexander Hepburn

1636. James Wyseman
1638. James Wright
1638. Robert Young
1639. Duncan Forrester
1644. William Tweedie
1644. James Pillans
1647. Andrew Suttie
1653. John Wishart
1665. George Sinclair
1666. John Wood
1667. William Paterson
1679. Gilbert M'Murdoch
1679. Andrew Massie
1680. Alexander Cockburn
1682. Robert Lidderdail
1684. Herbert Kennedy
1686. Thomas Burnet
1689. Alexander Cunningham
1690. William Law
1695. John Row
1695. William Scott
1701. Charles Areskine
1703. Robert Stewart
1707. Colin Drummond

Regents of Humanity, 1597-1708.

1597. John Ray
1606. Blase Colt
1611. Oliver Colt
1611. Robert Burnet
—— Andrew Stevenson
1623. Samuel Rutherford
1626. Thomas Craufurd
1630. John Armour
1633. Alexander Gibson
1636. James Wyseman
1638. Robert Young
1644. James Pillans
1653. John Wishart
1656. William Forbes
1656. James M'Gowan
1658. Hugh Smith
1663. William Cumming
1665. Andrew Ross
1665. Thomas Bell
1676. Gilbert MacMurdo
1679. Alexander Cunningham
1689. John Drummond

Professsors of Mathematics.

1620. Andrew Young
1640. Thomas Craufurd
1674. James Gregory
1683. David Gregory
1692. James Gregory
1725. Colin M'Laurin
1747. Matthew Stewart
1775. Dugald Stewart
1785. Adam Ferguson
1785. John Playfair
1805. John Leslie
1819. William Wallace
1838. Philip Kelland
1879. GEORGE CHRYSTAL

Professors of Humanity.

1708. Laurence Dundas
1728. Adam Watt
1734. John Kerr
1741. George Stuart
1775. John Hill
1806. Alexander Christison
1820. James Pillans
1863. William Young Sellar
1891. Harry Chester Goodhart
1895. WILLIAM ROSS HARDIE

Professors of Greek.

1708. William Scott, *one of the Regents*
1729. William Scott, *secundus*
1730. Colin Drummond
1738. Robert Law
1741. Robert Hunter
1772. Andrew Dalziel
1805. George Dunbar
1852. John Stuart Blackie
1882. SAMUEL HENRY BUTCHER

Professors of Logic and Metaphysics.

1708. Colin Drummond, *one of the Regents*
1730. John Stevenson
1774. John Bruce
1786. James Finlayson
1808. David Ritchie

1836. Sir Wm. Hamilton, Bart.
1856. Alexander Campbell Fraser
1891. ANDREW SETH

Professors of Moral Philosophy.

1708. William Law, *one of the Regents*
1729. William Scott
1734. John Pringle
1745. William Cleghorn
1754. James Balfour
1764. Adam Ferguson
1785. Dugald Stewart
1810. Thomas Brown
1820. John Wilson
1853. P. C. M'Dougall
1868. HENRY CALDERWOOD

Professors of Natural Philosophy.

1708. Robert Stewart, *one of the Regents*
1742. John Stewart
1759. Adam Ferguson
1764. James Russell
1774. John Robison
1805. John Playfair
1819. Sir John Leslie
1833. James David Forbes
1860. PETER GUTHRIE TAIT

Professors of Hebrew and Semitic Languages.

(See Faculty of Divinity.)

Professors of History.

1719. Charles Mackie
1753. John Gordon
1754. William Wallace
1755. John Pringle
1780. Alexander Fraser Tytler
1801. William Fraser Tytler
1821. Sir William Hamilton
1837. George Skene
1842. George Frederick Ferrier
1846. Cosmo Innes
1874. Æneas Jas. Geo. Mackay
1881. JOHN KIRKPATRICK
1894. GEORGE W. PROTHERO

Professors of Rhetoric and English Literature.

1762. Hugh Blair
1784. William Greenfield
1801. Andrew Brown
1835. George Moir
1840. William Spalding
1845. William Edmondstoune Aytoun
1865. David Masson.
1895. GEORGE SAINTSBURY.

Professors of Sanskrit.

1862. Theodor Aufrecht
1875. JULIUS EGGELING

Professors of Political Economy.

(See also Faculty of Law.)

1871. W. B. Hodgson
1880. JOSEPH SHIELD NICHOLSON

Professor of Education.

1876. SIMON SOMERVILLE LAURIE

Professor of Fine Art.

1880. GERARD BALDWIN BROWN

Professor of Celtic Languages, &c.

1882. DONALD MACKINNON

FACULTY OF SCIENCE.

[As Constituted in 1893 by Ordinance No. 12 (General No. 7).]

This Faculty embraces the Chairs of Mathematics, Natural Philosophy, Botany, Anatomy, Chemistry, Physiology, Natural History, Astronomy, Agriculture, Engineering, and Geology.

PROFESSORS IN THE FACULTY SINCE ITS INSTITUTION IN 1893.

For Professors of Mathematics and Natural Philosophy, see under Faculty of Arts. For Professors of Botany, Anatomy, Chemistry, Physiology, Natural History, see under Faculty of Medicine.

Professors of Practical Astronomy.

1786. Robert Blair
1834. Thomas Henderson
1846. Charles Piazzi Smyth
1889. RALPH COPELAND

Professors of Agriculture.

1790. Andrew Coventry
1831. David Low
1854. John Wilson
1885. ROBERT WALLACE

Professors of Engineering.

1868. Fleeming Jenkin
1885. GEORGE FREDERICK ARMSTRONG

Professors of Geology.

1871. Archibald Geikie
1882. JAMES GEIKIE

Professor of Technology.

1855. George Wilson
[Chair abolished in 1859.]

FACULTY OF DIVINITY.

This Faculty, the second in date, consists of the Chairs of Divinity, Hebrew and Semitic Languages, Ecclesiastical History, and Biblical Criticism and Antiquities.

PROFESSORS IN THE FACULTY OF DIVINITY SINCE 1620.

Professors of Divinity.

1620. Andrew Ramsay
1627. Henry Charteris
1629. James Fairley
1630. John Sharpe
1648. Alexander Colvill
1649. Samuel Rutherford
1650. David Dickson
1662. Patrick Scougall
1664. William Keith
1675. Laurence Charteris
1682. John Menzies
1683. John Strachan
1690. George Campbell
1701. George Meldrum
1709. William Hamilton
1732. James Smith
1733. John Gowdie
1754. Robert Hamilton
1779. Andrew Hunter
1809. William Ritchie
1828. Thomas Chalmers
1844. John Lee
1859. Thomas J. Crawford
1876. ROBERT FLINT

Professors of Hebrew.

1642. Julius Conradus Otto
1656. Alexander Dickson
1679. Alexander Amedeus
1681. Alexander Douglas
1692. Patrick Sinclair
1694. Alexander Rule
1702. John Goodall
1719. James Crawford
1732. William Dawson
1751. James Robertson
1792. George Husband Baird
1793. William Moodie
1812. Alexander Murray
1813. Alexander Brunton
1848. David Liston
1880. David Laird Adams
1892. John Dobie
1895. ARCHIBALD ROBERT STIRLING KENNEDY

Professors of Ecclesiastical History.

1702. John Cumming
1715. William Dunlop
1726. Matthew Crawford
1737. Patrick Cumming
1762. Robert Cumming
1788. Thomas Hardie
1799. Hugh Meiklejohn
1831. David Welsh
1844. James Robertson
1861. William Stevenson
1872. Robert Wallace
1876. Malcolm Campbell Taylor

Professors of Biblical Criticism and Biblical Antiquities.

1847. Robert Lee
1868. Archibald Hamilton Charteris

FACULTY OF LAW.

To this Faculty belong seven Chairs, viz.:—Public Law, Civil or Roman Law, History (Constitutional, &c.), Scots Law Forensic Medicine, Conveyancing, and Political Economy.

Professors in the Faculty of Law since 1707.

Professors of Public Law.

1707. Charles Areskine
1734. William Kirkpatrick
1735. George Abercrombie
1759. Robert Bruce
1764. James Balfour
1779. Allan Maconochie
1796. Robert Hamilton
1832. * * *
1862. James Lorimer
1890. Sir Ludovic Grant, Bt.

Professors of Civil Law.

1710. James Craig
1732. Thomas Dundas
1745. Kenneth M'Kenzie
1755. Robert Dick
1792. John Wilde
1800. Alexander Irving
1827. Douglas Cheape
1842. A. Campbell Swinton
1862. James Muirhead
1889. Henry Goudy
1893. James Mackintosh

Professors of History (Constitutional, &c.).

1719. Charles Mackie
1753. John Gordon
1754. William Wallace
1755. John Pringle
1780. Alex. Fraser Tytler
1801. William Fraser Tytler
1821. Sir William Hamilton
1837. George Skene
1842. James Frederick Ferrier
1846. Cosmo Innes
1874. Æneas Jas. Geo. Mackay
1881. John Kirkpatrick

Professors of Scots Law.

1722. Alexander Bayne
1737. John Erskine
1765. William Wallace
1786. David Hume
1822. George Joseph Bell
1843. John Schank More
1861. George Ross
1864. George Moir
1865. Norman Macpherson
1888. John Rankine

Professors of Forensic Medicine.

1807. Andrew Duncan, *secundus*
1820. William Pulteney Alison
1822. Robert Christison
1832. Thomas Stewart Traill
1862. Sir Douglas Maclagan
1897. Sir Henry Duncan Littlejohn

Professors of Conveyancing.

1825. Macvey Napier
1847. Allan Menzies
1856. A. Montgomerie Bell
1866. James Stuart Fraser Tytler
1892. John Philp Wood

Professors of Political Economy.[1]

1871. W. B. Hodgson, and re-appointed 1878
1880. Joseph Shield Nicholson

FACULTY OF MEDICINE.

The Faculty consists of twelve Chairs:—Botany, Physiology, Medicine, Anatomy, Chemistry, Midwifery, Natural History Materia Medica, Surgery, Clinical Surgery, Forensic Medicine, and Pathology. The Professors of Medicine, Materia Medica, and Pathology, are also Professors of Clinical Medicine. Some of these Chairs were instituted in the seventeenth century, but it does not appear that the Medical School and Faculty of the University were established until the beginning of last century.

Professors in the Faculty of Medicine since 1676.

Professors of Botany.

1676. James Sutherland
1706. Charles Preston
1712. George Preston

Professors of Medicine and Botany.

1738. Charles Alston
1761. John Hope
1786. Daniel Rutherford
1820. Robert Graham
1845. John Hutton Balfour

Professors of Botany.

1879. Alexander Dickson
1888. Isaac Bayley Balfour

Professors of Medicine.

1685. Sir Robert Sibbald, James Halket, Archibald Pitcairne

Professors of Institutes of Medicine or, Physiology.

1724. William Porterfield
1726. Andrew St Clair, John Rutherford
1747. Robert Whytt
1766. William Cullen
1773. Alex. Monro Drummond
1776. James Gregory
1789. Andrew Duncan
1819. Andrew Duncan, *secundus*
1821. William Pulteney Alison
1842. Allen Thomson
1848. John Hughes Bennett
1874. William Rutherford

Professors of Medicine.

1724. William Porterfield
1726. Andrew St Clair, John Rutherford
1747. Robert Whytt
1766. John Gregory
1773. William Cullen
1790. James Gregory
1821. James Home
1842. William Pulteney Alison
1855. Thomas Laycock
1876. Sir Thomas Grainger Stewart

[1] This Chair was declared to be a Professorship in the Law as well as in the Arts Faculty by resolution of the Senatus Academicus in 1879.

Professors of Anatomy.

1705. Robert Elliot
1708. Adam Drummond
1716. John M'Gill
1720. Alexander Monro
1754. Alex. Monro, *secundus*
1798. Alexander Monro, *tertius*
1846. John Goodsir
1867. Sir WILLIAM TURNER

Professors of Chemistry and Medicine.

1713. James Crawford
1726. Andrew Plummer
1726. John Innes
1755. William Cullen
1766. Joseph Black
1795. Thomas Charles Hope

Professors of Chemistry.

1844. William Gregory
1858. Lyon Playfair
1869. ALEX. CRUM BROWN

Professors of Midwifery.

1726. Joseph Gibson
1739. Robert Smith
1756. Thomas Young
1780. Alexander Hamilton
1800. James Hamilton
1840. Sir J. Y. Simpson, Bart.
1870. ALEXANDER RUSSELL SIMPSON

Professors of Natural History.

1770. Robert Ramsay
1779. John Walker
1804. Robert Jameson
1854. Edward Forbes
1855. George James Allman
1870. Sir Wyv. T. C. Thomson
1882. JAMES COSSAR EWART

Professors of Materia Medica.

1768. Francis Home
1798. James Home
1821. Andrew Duncan, *secundus*
1832. Sir Robt. Christison, Bart.
1877. THOMAS RICHARD FRASER

Professors of Surgery.

1777. Alex. Monro, *secundus*
1798. Alexander Monro, *tertius*
1831. John William Turner
1836. Sir Charles Bell
1842. James Miller
1864. James Spence
1882. JOHN CHIENE

Professors of Clinical Surgery.

1803. James Russell
1833. James Syme
1869. Joseph Lister
1877. THOMAS ANNANDALE

Professors of Forensic Medicine

(See Faculty of Law.)

Professors of Pathology.

1831. John Thomson
1842. William Henderson
1869. W. R. Sanders
1881. WILLIAM SMITH GREENFIELD

Professors of Military Surgery.

1806. John Thomson
1823. Sir George Ballingall
[Chair abolished.]

FACULTY OF MUSIC.

Reid Professors of Music

1839. John Thomson.
1841. Sir Henry Rowley Bishop
1844. Henry Hugh Pearson
1845. John Donaldson
1865. Sir Herbert Stanley Oakeley
1891. FREDERICK NIECKS

The Principal is a member of this Faculty *ex officio*, and Professor Kirkpatrick was appointed a member by the Senatus.

GENERAL COUNCIL OF THE UNIVERSITY.

The Chancellor, the Members of the University Court, the Professors, and the Graduates, are entitled to be registered as Members of the General Council. The fee for registration is £1.

The Register, now containing 8091 Members, is conclusive of the rights of persons to be Members up to 1st January 1898. By the Universities Elections Amendment (Scotland) Act all candidates for graduation must pay the Registration Fee before they can appear for graduation.

Under the Universities Act of 1858, and the Commissioners' Ordinance No. 1, section 3, the Council meets twice a year—viz., on the *first Tuesday after the fourteenth day of April*, and on the *last Friday in October*, at three o'clock P.M., "*to take into their consideration* all questions affecting the well-being and prosperity of the University, and to *make representations from time to time on such questions* to the *University Court*, who shall consider the same, and return to the Council their deliverance thereon." All proposed improvements in the arrangements of the University "shall be submitted to the University Council for their consideration."

By the Universities Act 1889, besides the two statutory meetings above mentioned, the Council "may hold special meetings at the instance of the Chancellor, who shall convene such meetings on a requisition from a quorum of members, and the Council may adjourn any meeting, and may appoint Committees to investigate into and report upon any matter remitted to them or to carry out instructions given to them by the Council." The Commissioners under this Act have fixed the quorum of the General Council at ten for every thousand or fraction of a thousand of members on the register, but this provision does not apply to the statutory half-yearly meetings, or to adjourned meetings.

At the meetings of the General Council, in the absence of the Chancellor, Rector, and Principal, the Chancellor's Assessor, and in his absence the Rector's Assessor shall preside; and in the absence of all of these, a Chairman shall be elected by the meeting, but no member of Senatus can preside at any

meeting held for the election of an Assessor or Assessors. The Chairman shall decide all points of order, and has a deliberative and a casting vote; and in case of an equality of votes at the conclusion of a poll, the Chairman, or any one appointed by the University Court to act for him, shall have a casting vote.

The General Council of this University, and that of the University of St Andrews together, return a Member of Parliament.

The *Chancellor* of the University and *four of the Assessors* in the University Court are elected by the Council. The Chancellor holds office for life, and the Assessors for four years. Two of the Assessors retire biennially, but may be re-elected. In case of a casual vacancy the person elected to fill it retires when the person whom he succeeded would in ordinary rotation have retired. No member of the Senatus can vote or take part in the election of any Assessor of the General Council. The next election of two Assessors will take place at the statutory half-yearly meeting in *October* 1897.

Members of General Council are entitled to the use of the University Library on payment of an annual fee of 10s. 6d., or they may compound for such annual fee by one payment of £5, 5s.

Three Standing Committees have been appointed by the General Council—viz., a Business Committee, an Ordinances Committee, and a Finance Committee. The Conveners are:

Business Committee—J. Campbell Lorimer, LL.B.

Ordinances Committee—J. Campbell Lorimer, LL.B., Interim Convener.

Finance Committee—David D. Buchan, LL.B.

STUDENTS' REPRESENTATIVE COUNCIL.

Presidents—J. R. Hunter; R. W. MacKenna, M.A.; E. P. Baumann. *Joint Hon. Secretaries and Treasurers*—G. Alick M. Wilson, 1 Marchmont Street; J. M. Hogge, 18 Gardner's Crescent.

The Students' Representative Council was founded in 1884. Its aims are—(1) To represent the Students in matters affecting their interests; (2) To afford a recognised means of com-

munication between the Students and the University authorities: and (3) To promote social life and academic unity among the Students. The Council is elected annually in November, partly by the Students of the different Faculties, and partly by the recognised Students' societies. Meetings are held in November, December, January, February, March, May, June, July, and October. At the November meeting an executive committee is elected, consisting of three presidents, two secretaries and treasurers, and eleven other members, representing the five Faculties.

The Commissioners, acting under the Universities Act 1889, have issued an Ordinance to the following effect:—

(1.) The Students' Representative Council shall submit to the University Court the regulations under which it exists, and these regulations as approved shall form the constitution of the Students' Representative Council.

(2.) After the University Court has approved of the constitution, alterations must receive the approval of the University Court.

(3.) 1. The Council may petition the Senatus as to any matter affecting the teaching and discipline of the University, and the Senatus shall dispose of the matter, or shall, if so prayed, forward such petition to the University Court, with such observations as it may make thereon.

2. The Council may petition the University Court as to any matter affecting the Students other than those falling under sub-section 1.

3. This Section shall not prejudice any right of appeal under Section 6, subsection 2, of the said Act, nor the powers and jurisdiction of the Senatus, as to teaching and discipline.

MATRICULATION.

University Matriculation consists in signing the Sponsio Academica, the Student thus entering his or her name in the Album of Students of the University, and in paying a fee of £1, 1s. for the academic year (1st Oct. to 1st Oct.), or a fee of 10s. 6d. for a Summer Session (1st May to 1st October). No person shall be deemed to be a Matriculated Student or shall enjoy any of the privileges of a Matriculated Student unless, in addition to paying the matriculation fee, he is enrolled as a Student in attendance in one or more classes in the University, and has paid the fees entitling him to such attendance: Provided that nothing herein contained shall affect the right of the University Court to exact a fee in lieu of and not exceeding the matriculation fee from any candidate for any examination or

for graduation, not being at the time a Matriculated Student, in addition to the fee payable for such examination or graduation. No one can attend a University Class without matriculating, except in those special cases in which an Entrance Fee of 5s. only is exacted (see below).

The Matriculated Students elect the Rector of the University. In case of an equality of votes, the Chancellor, or failing him, the Principal, has the casting vote. Students are also admitted to the University Library, and on certain days to the Museum of Natural History.

Candidates for Graduation who are attending Extra-Academical Lectures in Edinburgh, and not attending Classes within the University, must, at the beginning of each year, enrol their names in a book kept for that purpose, and pay a Fee of the same amount as the Matriculation Fee. In respect of such payment they have a right to use the University Library.

Sponsio Academica signed by students on matriculating :—

QUOD FAUSTUM FELIXQUE SIT. A. D.——

Ego Universitatis Academicae Edinburgensis Discipulus sinceré ac sancté promitto quod et syngraphâ hac meâ in perpetuum testatum cupio, mihi ante omnia cordi ac curae futurum verae pietatis studium ; me etiam in assuetis academici curriculi studiis sedulum fore, ut adolescentem bene institutum decet ; et quamdiu in illo curriculo permansero praeceptoribus omnibus morigerum memet praestiturum, nec ullius dissidii aut tumultus clam palamve vel auctorem vel participem futurum, et per reliquam vitam Universitatem Academicam Edinburgensem ipsam grato et benevolo animo prosecuturum, idque omnibus officiis pro facultate mea et occasione data testaturum esse.

MATRICULATIONS (1st May 1896 to 1st May 1897).

FOR SUMMER SESSION 1896 :—

I.	Faculty of Arts	16
II.	Faculty of Science	11
III.	Faculty of Divinity	2
IV.	Faculty of Law	9
V.	Faculty of Medicine	16
		54

Summer Session 1896 brought forward, ...		54
For Academic Year:—		
I. Faculty of Arts	747	
II. Faculty of Science	142	
III. Faculty of Divinity	59	
IV. Faculty of Law	431	
V. Faculty of Medicine	1386	
VI. Faculty of Music	9	
		2774
Total Matriculations (1st May 1896 to 1st May 1897)		2828

Non-Matriculated Extra-Academical Students in Edinburgh.

(1st May 1896 to 1st May 1897.)

I. Faculty of Medicine	69	
Total Non-Matriculated Extra-Academical Students (1st May to 1st May)		69

The University Court may admit non-Matriculated Students to any Class, on payment of an Entrance Fee (fixed at 5s.) in addition to the Class Fee; but such attendance (1) will not qualify for Graduation, (2) nor entitle the Student to a Certificate of Attendance, (3) nor confer any other University privilege.

Courses which may be attended under this Regulation:—

Constitutional History, additional Courses on.
Fine Art, short additional Courses on.
Economic History, short Courses on (in connection with Political Economy).
Procedure and Evidence.
Mental Diseases.
Diseases of the Eye.
Clinical Instruction on Diseases of Children.
Comparative Embryology.
Forestry.
Agricultural Entomology.
Music Classes.
Practical Pathological Bacteriology.
Chemical Laboratory.
Experimental Pharmacology.
Italian Language and Literature.
Celtic (for Classes not qualifying for Graduation).
German Literature, twenty lectures.

International Private Law.
Physics for non-Graduation Women Students of Medicine.

Number of Non-Matriculated Students who have paid the Entrance Fee 1st May 1896 to 1st May 1897—92.

Other Courses may be sanctioned under this Regulation.

Students are subject to the disciplinary jurisdiction of the Senatus. Among offences visited with severe academic penalties may be mentioned riotous or disorderly conduct, copying at examinations, and mutilating or disfiguring books belonging to the Library.

UNIVERSITY EXAMINERS.

The Examiners for Degrees are the Professors of, or Lecturers on, the different subjects, along with additional Examiners appointed by the University Court. As a general rule, no Professor, Lecturer, or University Assistant or Demonstrator can be appointed an additional Examiner.

GRADUATION CEREMONIALS.

The relative precedence of each Faculty is as follows:—1. Divinity; 2. Law; 3. Medicine; 4. Arts; 5. Science; 6. Music. The Deans take precedence in their respective Faculties, followed by the Members of their Faculties in the order of the dates of their Commissions.

Public Graduation Ceremonials are held annually about the middle of April (chiefly for Divinity, Law, Arts, Science, and Music), and about the first of August (for Medicine and Science). A special Ceremonial is usually held about the end of October (chiefly for Degrees in Medicine).

Graduates must appear on these occasions in Academic Costume.

ACADEMIC COSTUME.[1]

Chancellor.—Robe of Black Brocaded Satin, trimmed with Gold Lace, and with Gold Frogs down fronts and on sleeves. Black Silk Velvet Trencher, with Gold Button and Tassel.

Vice-Chancellor.—Robe and Trencher same as Chancellor's, but trimmed with Silver in place of Gold.

Rector.—Black Silk Gown, with Crimson Silk Velvet sleeves. The gown is trimmed round the collar and down the front edges with Broad Gold Lace, and the sleeves round bottom with a narrower Gold Lace. Black Silk Velvet Trencher, with Gold Button and Tassel.

[1] Graduates are requested to appear for Graduation wearing one hood only—viz., the one which indicates the Degree they are about to receive.

Principal.—Mauve Corded Silk Robe trimmed with Velvet to match. Black Silk Velvet Trencher, with Gold Button and Tassel.

Members of University Court.—Black Silk Robe, open sleeve, with Gold Frog on each sleeve.

With all of the above, Hoods appropriate to the Degree are worn.

The ordinary form of Gowns worn by Graduates of the University is the same in all the Faculties—viz., black silk or stuff, with long sleeves. The distinctive part of the costume is in the *Hood* appropriated to each Faculty. These Hoods are as follow:

LL.D.—Black *cloth*, lined with *blue* silk.

LL.B.—Black *silk*, lined with *blue* silk, bordered with white fur.

B.L.—Black *silk*, edged with *blue* silk three inches broad, trimmed with white fur.

D.D.—Black *cloth*, lined with *purple* silk.

B.D.—Black *silk*, lined with *purple* silk, bordered with white fur.

M.D.—Black *cloth*, with appended cape, lined and faced with *crimson* silk.

M.B. and C.M.—Black *silk*, lined with *crimson* silk, bordered with white fur.

D.Sc.—Black *cloth*, lined with *green* silk.

B.Sc.—Black *silk*, lined with *green* silk, bordered with white fur.

M.A.—Black *silk*, lined with *white* silk.

D.Litt.—Rich claret *cloth*, with *white* corded silk lining.

D.Phil.—Rich dark blue *cloth*, with *white* corded silk lining.

Mus.Doc.—Rich scarlet *cloth*, with rich *white* corded silk lining.

Mus.Bac.—Scarlet *silk*, with *white* silk lining, edged with *white* fur.

The full Academic Dress for Doctors is a Gown of superfine Scarlet Cloth, loose sleeves, the cape and facings down the front covered, and the sleeves lined, with rich silk of the colour proper to the Degree. Birretum of black silk velvet.

REGULATIONS OF UNIVERSITY COURT.

I.—Absence of Professors.

1. When any Professor shall be prevented from teaching his Class for more than three successive days, an arrangement shall be made for his Class being taught in his absence; and such arrangement shall be intimated to the Dean of his Faculty.

2. When any Professor has reason to expect that the demands of his Profession may involve absence from duty for more than four days in all in the course of a Session, an arrangement similar to that in Regulation 1 shall be made and intimated to the Dean of his Faculty.

3. No arrangement for teaching a Class in absence of the Professor shall continue longer than one week without the sanction of the Senatus Academicus; or, if there be no sufficiently early meeting of the Senatus, without the *interim* sanction of the Principal and Deans Committee.

4. When any Professor shall contemplate an absence from duty of

more than one week, it shall be necessary for him to obtain the sanction of the Senatus for such absence, and for the arrangements for teaching his Class; and if his contemplated absence extend to four weeks or upwards, the sanction of the Senatus shall require the confirmation of the University Court.

5. No Professor shall employ any one other than a Colleague or University Assistant to teach his Class for him, without obtaining the sanction of his Faculty; and such sanction shall be communicated to the Senatus at its first meeting thereafter.

6. The Statement of the arrangements for teaching a Class in the absence of the Professor, submitted to the authorities of the University, shall specify the remuneration proposed to be given to the Professor's Substitute.

II.—Absence of Examiners.

1. Any University Examiner who finds himself prevented from being present at any Examination at which it is his duty to act, shall intimate this to the Dean or other Chairman of his Examining Board, who, on receiving such intimation, or otherwise becoming aware of the absence of the Examiner, shall, if possible, appoint a properly qualified Substitute to act for such Examiner.

2. In every case in which a person is appointed to act as Substitute for a University Examiner, and in which his Faculty, or Examining Committee, shall consider it necessary that the Substitute shall receive remuneration, the rate of remuneration to be paid by the Examiner (whether a Professor or Additional Examiner) to his Substitute shall be fixed by the Faculty, or Examining Committee, and shall be based upon the amount of the Fees payable to the Additional Examiners attached to the Faculty or Examining Committee.

3. All absences of University Examiners, their duration and cause, and the relative arrangements made, shall be immediately reported for approval to the Senatus Academicus by the Chairman of the Board to which the absent Examiner is attached; and a similar Report shall in every case of the absence of a University Examiner be made by the Senatus Academicus to the University Court; provided always that such arrangements shall receive immediate effect when circumstances do not permit the previous approval of the Senatus Academicus to be obtained.

4. In every case in which a Professor shall apply for leave of absence from his duties generally, provision shall be made, under the existing Regulations regarding leave of absence to Professors, for the performance of his duties as Examiner, as well as for the performance of his duties as Teacher; and provision shall be made for the remuneration of his Substitute in both capacities.

III.—Applications for Additional (or Non-Professorial) Examinerships in the University.

1. Applicants should lodge sixteen copies of their applications (one

of which should be signed), and sixteen copies of any testimonials they may desire to present, with the Secretary of the Court, not later than one week before the day fixed for making appointments in each case.

2. Applicants who send in testimonials must not send more than four for any one appointment.

3. Persons may be appointed to examine in two of the thirteen Subjects of the Examinations for Graduation in Medicine, but not more, and not in more than one Subject in any one Division of the Examinations.

4. Every applicant for an appointment in Divinity must hold the degree of B.D. from a Scottish University.

Every applicant for an Examinership in Law must be a Bachelor of Laws of a Scottish University.

IV.—Opening of New Classes.

No class in addition to those existing in the University shall at any time be opened,—whether for the purpose of dividing the course on a subject necessary for graduation, or for teaching a class not requisite for graduation,—without the approval of the Senatus and the sanction of the University Court.

V.—Recognition of Extra-Academical Teachers.

1. Every applicant for recognition shall furnish for the information of the Authorities of the University:—

(1.) A Statement of his Registered Qualification or Qualifications, and of the name of the Office, or Appointment (if any) which he holds, as a Teacher of the Subject in which he requests recognition.

(2.) A Syllabus of his Course of Lectures; or, in the case of a Practical Class, information of a similar kind.

(3.) A Statement of the number of Lectures, and of the number of Written or Oral Examinations in the Course; or, in the case of a Practical Class, information of a similar kind.

(4.) A Short Description of his Accommodation for a Class; and of the Apparatus, Illustrative Specimens, Diagrams, and other appliances, at his disposal for teaching the Subject in which he desires recognition.

(5.) A Statement of his opportunities of studying the Subject, and of the length of time devoted thereto.

(6.) A Statement of the experience he has had in teaching the Subject.

(7.) A Note of the Titles of his published Contributions to the Science of the Subject.

(8.) A Statement as to whether his Course or Courses of Instruction have been already recognised by any University or other examining body, and, if so, what means were adopted for ascertaining his qualifications for teaching.

2. In the case of every Applicant for recognition residing in Edin-

burgh or its neighbourhood, an inspection shall be made of his teaching Appliances and Accommodation for teaching.

3. Every recognised Extra-Academical Teacher shall annually furnish the University with the information regarding his Course or Courses which is required from the University Professors as to (1.) The number of Students attending the recognised Course or Courses of Instruction; (2.) The number of meetings for ordinary Class Work in the Session, and in each week thereof; (3.) The number of Special Written Examinations; (4.) The system of conducting the ordinary Class Work, and the number of meetings devoted to each kind of work.

4. The Certificate of Attendance granted to Students by recognised Extra-Academical Teachers, should, in all cases, state the duration of the Course and the number of Meetings for Systematic, Tutorial, and Practical Instruction, respectively; the number of occasions on which attendance was ascertained, and the number of those occasions on which the Student was present; and the number of Class Examinations held during the Course, and whether or not the Student has taken a satisfactory part in the work of the Course, including the Class Examinations, if any. The Certificate should also state the general scope of the Course; and, in particular, in the case of Chemistry, that the Course included Organic as well as Inorganic Chemistry; in the case of Midwifery, that it included the diseases of Women and Children; and, in the case of Practical Materia Medica, that it included Pharmacognosy, Pharmacy, Dispensing, and the writing of Prescriptions.

5. When application is made for the recognition of a Course taught by two or more Teachers in conjunction, information shall be given of the share to be taken by each Teacher in such conjoined Course; and the recognition of such conjoined Courses, and of each of the persons recognised as Teachers of a conjoined Course shall, *ipso facto*, terminate should one or more of the Teachers cease to conduct the Course, or should any material change be made in the share of each Teacher in the teaching of the conjoined Course.

6. The recognition of any Teacher who fails to furnish the information called for in Section 3, or an explanation relative to such failure; or who has ceased for the period of two consecutive Sessions to teach the subject on which he is recognised, shall, *ipso facto*, terminate.

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University Buildings.

THE University Buildings at present consist of: (1) The College, or University (Old) Building, with Dome, in South Bridge Street; (2) The New Buildings (School of Medicine), Teviot Place; and (3) The Music Class Room, Park Place.

I.—THE UNIVERSITY (OLD) BUILDING.

The Old Building, on the site of "Kirk o' Field," the scene of the murder of Darnley, contains the Library and Reading Rooms; the Class Rooms of the Faculties of Arts, Divinity, and Law, the Natural History, and some other Science Class Rooms; the Theological Library and Reading Room; the mination Hall; the Physical, and the Geological and Petrological Laboratories; the Fulton Engineering Laboratory; the Physical, Geological, Fine Art, and Natural History Museums; the Senate Hall, University Court Room, and the Offices of the Senatus, the Court, and the Students' Representative Council.

The work of teaching began in 1583, but before the end of the eighteenth century, the professors and students had been very imperfectly housed. In a Memorial, dated 1768, Principal Robertson complains that the buildings, "poor in themselves, seem not to have been carried on according to any regular plan, such as takes place in other academical structures which have been erected on more opulent foundations; and hence the whole fabric has a mean, irregular, and contemptible appearance." At that time the number of students was between six and seven hundred, and that of professors twenty-one.

Twenty years later a writer in the "Scots Magazine" complains that "in 1788 the buildings of the University are in the same ruinous condition that they were in in 1768, and the most celebrated University at present in Europe is the worst accommodated." A scheme for rebuilding, often discussed, was now taken up seriously by the Town Council, encouraged by promise of liberal aid from Government. A plan was obtained from Robert Adam, then at the height of his reputation, and the foundation stone of "the New College of Edinburgh" was solemnly laid on 16th November 1789.

Adam's original plans, preserved in the Soane Museum in London, divide the space now occupied by the College buildings into two quadrangles, a smaller to the east, entered as now from South Bridge Street, and a larger beyond it to the west, with a block of academic buildings lying between. This arrangement was doubtless suggested by the rapid rise of the

ground from north-east to south-west. Round these two courts there were to be Class Rooms, Museums, a Library, and also houses for the Principal and Professors. The western side of the larger court was to be occupied by a Graduation Hall and Chapel ; and the great quadrangle was to be flanked with corridors, affording communication between the class-rooms. The building, begun chiefly on the eastern and northern sides, was, however, soon stopped by the death of the architect in 1792, and by failure of funds. In 1815 a Government Commission was appointed to collect funds and to carry out the undertaking, though in a modified form. They invited plans "for finishing the College of Edinburgh, on a reduced scale, leaving out the south front, and the cross building, which formed the small court in the original plan,—regard being always had to the part already executed, and to the preservation of the architecture of Mr Adam, as far as practicable." Out of nine sets of plans sent in, those of William Henry Playfair were selected, and under his superintendence the work was practically completed in 1828, at a total cost of about £161,000.

The general character of the whole design is due to Robert Adam. Some portions were erected by him, or completed after his death from his drawings. In other parts some modification of his plans and elevations was necessary, while a third portion had to be designed anew by Playfair, who was careful to conform to Mr Adam's design. The handsome eastern façade, with its monolithic columns 22 feet in height, was erected by Adam, who intended to have embellished it with a certain amount of sculpture. He also erected the north-west corner of the great court, of which the circular Loggie form an admired feature, carried out part of the north side, and began the western block. Playfair threw the two courts into one, and designed the north and south interior elevations anew. In the western block he adhered to Adam's designs ; but the interior treatment of the block, fitted up for the Natural History Museums, is his own ; and the "Upper Museum," now the Natural History Laboratory, is a good specimen of his style. The "circular corners" designed by Adam for his great court

were retained by Playfair for his single quadrangle. On the exterior, the north front is Adam's, and its plainness is due to the fact that only a narrow lane instead of the broad Chambers Street then bounded the College on that side. Adam's handsome design for the south front was simplified by Playfair, but is still superior to the north elevation.

The difficulty of the levels in the quadrangle was satisfactorily overcome by Playfair by surrounding the court with a terrace, which affords a suitable architectural base for the noble buildings rising above it. But Playfair's great achievement is the Library Hall, a fine gallery 185 feet by 54 feet, with an arched ceiling enriched with cassettes, but inadequately lighted.

The general effect of the buildings is simple and dignified. The material is mainly Craigleith stone, and the detail carving is well worked out. The single quadrangle, measuring 242 feet 6 inches from east to west, by 134 feet from north to south, is a great improvement on the original plan of 1789, though the essentials of the design are due to Adam. The interior elevations of the quadrangle, especially on the west, and the eastern front to South Bridge Street, may safely be pronounced excellent specimens of the neo-classic style.

The Dome.

Adam's original design provided for a Dome over the eastern portal, but as his sketch was not very pleasing, no steps were taken to carry out this feature until 1883, when funds came into the possession of the University, bequeathed for this purpose by Robert Cox, Esq., W.S. It was then determined to carry out the Dome on a new design by R. Rowand Anderson, LL.D., Architect of the University New Buildings (School of Medicine). The present Dome, though less purely classical than the Adam-Playfair building, is pleasing and effective. An admirable finial is formed by a vigorous and athletic figure of Youth, bearing the torch of Knowledge, executed in bronze by John Hutchison, Esq., R.S.A. The Dome now contains the Fine Art Museum.

II.—THE UNIVERSITY NEW BUILDINGS.

(SCHOOL OF MEDICINE.)

In 1869 the number of students had risen to fifteen hundred,

and that of the Professors to thirty-three, while there were seventeen Class Rooms only for their use. A Committee was therefore formed in 1873, and an appeal was made to the public for subscriptions for the purchase of a site for and the erection of complete Class Rooms, Theatres, Laboratories, and Museums for the Faculty of Medicine ; for reorganising the Class Rooms in the Old Building for the Faculties of Arts, Divinity, and Law ; for providing better accommodation for the Library ; for erecting a Hall for examinations and academic ceremonials ; and for improving the north front of the College building.

This appeal to the public yielded a sum of £148,548, 2s. 5d., which, with a grant of £80,000 from Government, and interest, rents, &c., amounted to £244,587, 4s. 8d.

These buildings (the University New Buildings), begun in 1878, were partly opened for teaching purposes in October 1880, and after their completion, were transferred by the Committee to the University in October 1888. They are situated on a site formerly covered by Teviot Row, Park Street, and Park Place, and were designed by R. Rowand Anderson, LL.D., Architect, and completed under his supervision.

They contain the Lecture Rooms, &c., of the Faculty of Medicine (excepting those of Botany and Natural History), the Museums of Practice of Physic, Anatomy, Chemistry, Obstetrics, Materia Medica, and Surgery ; a Students' Reading Room, Students' Common Room, Faculty of Medicine Reception and Reading Rooms, and Office of the Faculty.

The style of architecture is Italian of the Cinque-Cento period, intermediate between the Gothic and the stiff Palladian work, which aims at a mere manipulation of the five orders. The main frontage presents a slightly projecting elevation, pierced by the archway which forms the principal entrance. Over the arch is an ornate window, flanked by pilasters, between which are niches for statuary ; and the whole is surmounted by a bold semi-circular pediment, intended to be occupied with sculpture. The façade is three storeys in height except in the projecting west wing, which has an additional floor. On the ground floor the windows are square. Above these runs a well-marked string-course orna-

mented with dentils. The first-floor windows are round-headed and furnished with architraves. Next comes a broad frieze relieved at intervals with circular panels. Over this the string-course is repeated; and the upper-floor windows are separated by pilasters, and divided by shafts supporting circular tracery. The wall is finished at the top with architrave, frieze, and cornice, and crowned with a low-pitched roof. The external features have of course been influenced by the internal arrangements.

THE M'EWAN HALL.

The building which completes the group of the University New Buildings, or School of Medicine, is the M'Ewan Hall, the munificent gift of William M'Ewan, Esq., M.P., Edinburgh. Dr R. Rowand Anderson was also the architect of this building, which stands on the ground formerly occupied by Park Street. The Greek Theatre forms the basis of the design. The longer diameter of the semicircle is 134 ft.; the shorter, including the platform recess, is 107 ft.; and the total height is 90 ft. At the north-west corner, and connecting the Hall with the present buildings, is to be erected the Campanile, 32 ft. square at the base, and rising to a height of 275 ft. At the south-west corner is the entrance to the principal staircase, and on the outer circumference of the circle are two double staircases for access to the galleries. No fewer than seven entrances to the Hall are provided. One of the chief of these is in the base of the tower. The Hall is capable of holding 3000 people, and will be used for Examinations, Academic Ceremonials, Concerts, etc. A large platform and ample floor space and galleries have accordingly been provided, and a great organ is to be erected over the platform. The platform is placed on the straight (west) side of the Hall, and has seats for the Chancellor, the Rector, the Principal, the University Court, the Senatus, the Curators, &c. The roof is domical in form, deeply panelled, pierced with circular lights, and has in the centre a skylight 25 feet in diameter. It is constructed entirely of steel. The external elevation conforms to the early Italian of the rest of the buildings. The great circle of the Hall is divided vertically by

powerful buttresses, while horizontally the lines correspond with those of the west façade. The elevation is divided into three stages; the first panelled with circular lights, the second a blank wall, while the third stage is arcaded. On the two principal stages the buttresses have niches for figures. The wall is surmounted by a cornice and balustraded parapet, above this appears the clerestory, and over all rises the domical roof. The Hall was begun in 1889, and completed in 1897.

III.—REID SCHOOL OF MUSIC.

The School of Music, situated immediately to the south-east of the University New Buildings, was built in 1858, from the designs of the late David Cousin. It contains the Music Class Room, with an organ of four manuals and sixty-six stops, in a handsome carved oak case; and a Museum of interesting acoustic and antique musical instruments.

The architecture of the building is in the Italian Renaissance style of the early part of the sixteenth century.

University Library.

LIBRARY COMMITTEE.

THE Library Committee consists of not more than seven members, not being members of the Senatus, appointed by the University Court, and of such number appointed by the Senatus as shall be double the number appointed by the Court. The Committee is charged with the superintendence of the Library, and of any libraries acquired, or to be acquired, for the use of the University. The members of the Committee are appointed by the University Court and the Senatus respectively at their first meeting in the Winter Session.

Principal Sir WILLIAM MUIR,
Sir THOMAS CLARK, Bart., } *Joint Chairmen.*

Professor EGGELING,
J. BURGESS, C.I.E., LL.D., } *Joint Conveners.*

Professor Crum Brown; James Taylor Brown, Esq., LL.D.; Professor Chrystal; James Colston, Esq.; Professor Cossar Ewart; Pro-

fessor Flint; Professor Hardie; Rev. Edward F. Hermle, M.B.; Professor Kirkpatrick; Professor Mackinnon; J. Balfour Paul, Esq.; Professor Prothero; Professor Rutherford; Professor Saintsbury; Professor Simpson; Professor Tait; F. P. Walton, Esq., LL.B.

In 1580 Mr Clement Littil or Little left his books to "Edinbvrgh and Kirk of God thair to reman." This collection of about 300 volumes, chiefly theological (see list in Miscellany of the Maitland Club, vol. i., 1834), was transferred by the Town Council to the University, and became the nucleus of the University Library, which was gradually augmented by donations from citizens of Edinburgh and alumni of the University, and by the contributions of graduates.

The celebrated Poet, Drummond of Hawthornden, bequeathed his library to the University in 1627—a valuable gift, both from the eminence of the donor, and the rare specimens of early literature it embraces (see *Auctarium Bibliothecæ Edinburgenæ*, 1627).

Among noteworthy donors are Principal Adamson; Dr Robert Johnston, a physician in London; the Rev. James Nairne of Wemyss, in Fife; Dr John Stevenson, Professor of Logic and Metaphysics in the University; and Dr William Thomson, Professor of Anatomy in the University of Oxford. In 1872, Mr J. O. Halliwell, the eminent Shakespearean critic, presented his very valuable collection of works relating to Shakespeare. In 1875 a large collection of Persian and Arabic MSS. was presented by Mr J. B. Baillie of Leys; in 1879 an extensive collection of MSS. was received from the executors of David Laing, LL.D.; in 1880 the works on Economic Science collected by Professor Hodgson were presented by Mrs Hodgson; in 1882 valuable works on Sanskrit Literature were presented by the family of Dr John Muir; and in 1886 Mr Thomas Stratton bequeathed 110 works bearing on the study of Celtic In 1889 Mr William Mackinnon, Balmakill, purchased the books of Dr Cameron of Brodick, an eminent Celtic scholar, for £600, and presented them to the University; and the same year the Library received a collection of MS. Shakespeariana from Mr Halliwell-Phillipps, and a number of books belonging to the late Professor

Wilson, from Mrs Wilson. A "Lorimer Collection," in memory of the late Professor Lorimer, was presented by his son-in-law, Sir David P. Chalmers. In 1895 Professor Blackie left to the Library his collection of modern Greek books; and important additions were obtained from the Goodsir bequest, and from Major Sprot, as representative of the late Dr Cleghorn of Stravithie.

The Library contains about 195,000 printed volumes, and about 7500 MSS., many of which are of great value.

The University also possesses a number of valuable pictures and busts, which adorn the Library and the Senate Hall.

The Library Hall, and the suite of rooms connected with it, occupy the south side of the quadrangle (Old Buildings).

In 1895 the following Library Regulations were laid down by Ordinance (No. 64):—

I. The Librarian shall have the ordinary management of the Library of the University, subject to the superintendence of the Library Committee appointed under the provisions of Ordinance No. 8 [St Andrews, Aberdeen, and Edinburgh, No. 1,—Libraries and Museums].

II. The Librarian, and such Assistant-Librarians as the University Court, on the report of the Library Committee, may think necessary, shall be appointed by the University Court. The University Court shall also have the power of suspending or dismissing such Librarian and Assistant-Librarians.

III. All books ordered for the Library by the Library Committee shall be sent direct to the Librarian, and all books received by him shall be forthwith catalogued by him in such manner as the Library Committee may direct, and stamped with the Library stamp; and no person shall be allowed to use or borrow any book until it has been entered in the catalogue and stamped.

IV. The Librarian shall, with the approval of the Library Committee, from time to time prepare a list of such books, manuscripts, and other works as cannot, in consequence of any deed of gift or otherwise, be lent out of the Library; and the Library Committee shall from time to time make such regulations as they shall think expedient for allowing access to such works for consultation.

V. Manuscripts, rare books, works of reference, and such other works as the Library Committee shall determine, shall not be lent out of the Library, except under regulations to be made by the Library Committee and approved by the Senatus Academicus and the University Court; and, in addition to such general regulations, the Library Committee may, in each individual case of borrowing such works, impose such special conditions as they may think necessary or expedient: Provided always that every such special permission and all such additional conditions imposed by the Library Committee shall be entered in the Minute-Book of the Committee.

VI. It shall be in the power of the Librarian at any time to withdraw any work from circulation, subject to appeal to the Library Committee.

VII. It shall be in the power of the University Court, after consultation with the Senatus Academicus, and on the report of the Library Committee, to sell or exchange such works as they consider it in the best interests of the Library to dispose of.

VIII. A general inspection of the Library shall take place at such times and during such periods as the University Court, on the report of the Library Committee, shall determine, and all works whatsoever, and by whomsoever borrowed, shall be returned to the Library before the commencement of such periods, under a penalty previously fixed and publicly notified by the University Court.

IX. The Library Committee shall frame regulations to be approved by the University Court, under which the persons hereinafter mentioned may respectively borrow or consult books. Such regulations shall prescribe, *inter alia*, (*a*) the number of books which the said persons shall be entitled to borrow; (*b*) the period for which they shall be allowed to retain them; (*c*) the penalties to be imposed in the event of their failure to return books in due time, or in the event of books being lost or injured.

The persons entitled to borrow books shall be:—

1. Members of the Senatus Academicus and University Lecturers.
2. University Assistants and Examiners.
3. The Librarian and Assistant-Librarians.
4. Matriculated Students.
5. Extra-academical Teachers, recognised by the University Court, in the town in which the University is situated.
6. Students enrolled in any Scottish University as attending the lectures of extra-academical teachers in the town in which the University is situated, and who are already entitled by Ordinance to the use of the Library.
7. Persons who have retired or who shall hereafter retire from the office of Principal or Professor.
8. Members of the University Court.
9. Members of the General Council.

Provided that no member of the University Court or of the General Council shall be entitled to obtain from the University Library books required by the Teachers or Students of the University in the prosecution of academic work and research, and that it shall be in the discretion of the Librarian, subject to appeal to the Library Committee, to decide from time to time what books are so required.

In fixing the number of books to be borrowed by the aforementioned persons respectively, due regard shall be had to the preferable claims of those engaged in teaching and studying in the University.

X. Members of the General Council shall be required, as a condition of exercising the privilege of borrowing books, to pay such subscription as the University Court shall fix from time to time.

XI. The University Court shall determine what sum, if any, shall be deposited by those entitled to borrow books.

XII. The Library Committee, with the approval of the University Court, may admit to the use of the Library, upon such conditions as to subscription and otherwise as they may require, members of the General Council of other Scottish Universities and Graduates of the University who, by reason of being under the age of twenty-one years, are not qualified to be members of the General Council.

XIII. It shall be in the power of the Library Committee from time to time to grant

the use of the Library to such extent and on such conditions as they shall think expedient to persons who may not be members of the University, for purposes of literary research, and the names of those privileged readers shall be reported annually to the University Court.

XIV. So long as any Library subscription or any fine incurred remains unpaid, and so long as any person continues in possession of a book which he is not entitled to retain, the right of the defaulter to the use of the Library shall be suspended and remain in abeyance.

XV. The Library Committee shall, in an annual report to the Senatus Academicus, furnish information as to :

1. The state in which the borrowing registers are kept, and whether there is in use any finding list or other means for facilitating the recall of books.
2. The condition of the various catalogues, whether they are brought up to date or not; the amount of arrears, if any, of the cataloguing of the titles of current acquisitions; and what portions of the Library, if any, remain uncatalogued.
3. The amount of money spent in the purchase of books and periodicals respectively, and how the expenditure has been distributed among the several departments of literature and science.

XVI. At such time as shall be fixed by the Senatus Academicus the Librarian shall report to the Senatus in reference to the year then ended :

1. The particulars of every case of admission to special reading privileges.
2. The particulars of every case in which the right to the use of the Library has been suspended or is in abeyance.
3. Every case in which a book belonging to the Library has been replaced at the expense of a borrower.
4. The titles of all books belonging to the Library, known to have been lost or seriously injured, or found at the time of inspection to be amissing.
5. The titles of all books entered as missing in previous reports which have been recovered.
6. The number of accessions to the Library acquired by purchase and received in donation respectively.
7. Any other matter which the Librarian may think it of importance to bring under the notice of the Senatus Academicus, or which he may be directed by the Library Committee to report.

The Senatus Academicus shall forward the report to the University Court.

The following Regulations are at present in force :—

I. The Library is open for giving out Books to Readers, on loan or for reference, every lawful day during the Winter Session, from Ten to Four, Saturdays, Ten to One ; and during the Summer Session and Autumn from Ten to Three, Saturdays Ten to Twelve ; except in August, the Christmas vacation, and the week in which the Spring Holiday occurs, when the Library

(not the Reading-Rooms) is open from Ten to One, except on Saturdays and holidays. The holidays are—the Queen's Birthday, Christmas Day, New Year's Day, Good Friday, and the Edinburgh Spring and Autumn Holidays. For Students' Reading-Rooms, see pages 47 and 48.

II. Each Member of Senatus, and each University Lecturer, may have at one time twenty-five volumes at most.

III. Each University Assistant may have at one time ten volumes, and not more.

IV. Each University Examiner may have five volumes, and not more.

V. The Librarian may have at one time ten volumes, and not more ; and each Assistant-Librarian four volumes, and not more : Provided books borrowed by the Librarian, or by any Assistant-Librarian, are entered in the Library Books, in the same manner as books borrowed by other persons.

VI. (1) Every Matriculated Student may have two volumes at one time, and may retain any book for two weeks ; and may re-borrow any book for successive periods of two weeks, unless applied for by another person. In exceptional cases Students may be allowed by the Library Committee to take out more than two volumes at a time : Provided that every Student, before borrowing books, must exhibit his Matriculation Ticket, and at least one Professor's Ticket, and deposit £1 at the Matriculation Office, after which his name will be enrolled in the Library books. (2) No certificate of attendance on a class may be granted by a Professor to any Student without production of evidence that the Student has duly returned all books he has borrowed from the Library.

VII. Each extra-academical teacher, recognised by the University Court, is entitled, on paying an annual subscription of ten shillings and sixpence, to take out five volumes, and not more.

VIII. Each Student enrolled as attending an extra-academical teacher in Edinburgh (under Ordinance No. 16, Edinburgh, No. 1, Section VIII., Sub-section 5) has the same Library privileges as a matriculated Student ; and no certificate

of attendance on the lectures of such teacher may be given to any Student without production of evidence that the Student has duly returned all books he has borrowed from the Library.

IX. Each person who has retired from the office of Principal or Professor is entitled to take out ten volumes, and not more.

X. Each Member of the University Court and of the Library Committee is entitled to take out ten volumes, and not more.

XI. Each Member of the General Council is, in each year on paying ten shillings and sixpence to the Library, entitled to take out four volumes at a time ; and a payment of five guineas, instead of such yearly subscription, entitles him to the like privilege for life. The year is held to date from the day on which the subscription is paid, as recorded on the reader's ticket and in the Library Books.

XII. In consideration of the annual payment of five pounds by the Royal College of Surgeons to the University, each Fellow of the College resident within ten miles of Edinburgh, is, in each year in which he pays a subscription of one guinea to the Library, entitled to take out ten volumes.

XIII. Subject to the provision as to the return of books at the annual inspection, every person in each of the above classes is entitled to retain each book for one month from the date of borrowing, if the book has been borrowed between the *first day of October* and the *thirtieth day of April inclusive*, and for two months from the date of borrowing, if the book has been borrowed between the *first day of May* and the *thirtieth day of September inclusive*, except in so far as the special rules as given above are applicable ; and further, after the expiration of such period of one month or of two months, as the case may be, he may retain each book until the annual inspection in October, unless notice is received by him requiring the return of such book. The form of notice requires the return of the book within a certain period to be specified therein, under penalty of not less than one shilling a volume, if the book be not returned within such period ; and after the expiration thereof, under a further penalty of sixpence a volume for each day, as long as the book is not returned, until the amount of the

fine exceeds the sum for which the book can be replaced. Such penalties to be also specified in such notice.

XIV. A general Inspection of the Library, and of the record of borrowing and returning books, takes place (as above provided by Section VIII.) *annually in the first week of October.*

XV. During the annual Inspection, the Library is closed, and all works must be returned before the beginning of such period, under a penalty of not less than one shilling a volume ; and in the event of any volume not being returned before the expiration of one week after the last day of the inspection, the fine is repeated weekly until such volume is returned, or until a copy of the work of equal value is, at the expense of the borrower, placed in the Library in its stead. The amount of the fine, in the case of works borrowed by special permission, may be fixed either by general regulation of the University Court, or by special condition imposed by the Library Committee.

READING ROOMS.

I. Old Buildings.

A separate collection of books is set apart for the use of Students.

Those wishing to consult books must insert in one of the slips provided for the purpose their Matriculation Number, Name and Residence, and the title of the Book, and present the slip to the Librarian in attendance.

Each slip will render the person who has signed it responsible for the book named. The counterfoil of the slip should, therefore, be reclaimed from the Librarian when the Book is returned, or whenever the Book applied for is not available.

Every volume must be returned by the borrower before leaving the Reading Room. Students are forbidden to leave the Books on the table ; they are required to hand them to the Librarian, and to get back the counterfoils. To prevent confusion, this should be done a few minutes before the close of each hour by those about to attend classes.

Besides the books in the Reading Room, each Student may consult in the Reading Room Two Volumes daily from the General Library: Provided he has handed in slips applying for them on the previous day, before 2 P.M. To such books the same rules will apply as to those consulted from the Reading Room.

No conversation or noise is permitted in the Reading Room.

The Librarian is responsible for the management of the Reading Room. Any difficulty that may arise must be referred to him, or, if necessary, through him to the Library Committee.

Students, on first applying for books in the Reading Room, must exhibit their Matriculation Tickets.

All books taken into the Room from the General Library shall be examined and returned to their place in the General Library each day. No books shall be issued from the General Library, for use in the Reading-Room, after 3.20 in Winter or 2.30 in Summer; and all books from the General Library shall be given up in the Reading-Room at 3.45 in Winter and 2.45 in Summer.

The Reading-Room is open daily during the Winter Session from 10 to 4 and from 8 to 10 P.M., and is available for either men or women Students. Books required from the General Library must be demanded in writing before 3 o'clock.

A Special Reading-Room is set apart for women students.

II. New Buildings.

In the New Buildings is a Students' Reading-Room containing Books of Reference for those attending the Classes in the Faculty of Medicine. The Regulations as to consulting Books are similar to those in the Reading-Room in the Old Buildings. See p. 47. It is open daily, from 9 A.M. to 5 P.M.; Saturdays, 9 to 12. It is open in September and during the week in which the Spring Holiday occurs (Saturday excepted), from Ten to One. It is closed during August and the Christmas Vacation, and on holidays and Saturdays during the Summer Vacations.

THEOLOGICAL LIBRARY.

This Library, founded in 1698 for Students in Theology, contains above 10,000 volumes. The management is vested in six Curators, chosen by ballot by the "Cives" of the Library from their own number. Students of Divinity of this or other Scottish University are admitted as Cives on paying: the former, two shillings and sixpence; the latter, five shillings, per annum. No one who, when a Student of Divinity in this University, failed to enter as a Civis, may afterwards do so until he has paid up the arrears of two shillings and sixpence for each year of his Theological Course in which he failed to pay. No Civis can be elected a Curator unless at least in the second year of his attendance at the Divinity Hall. The election takes place in the second week of December, one-third of the Curators going out annually by rotation. The Curators elect one of their own number to be Treasurer. The Curators and Treasurer report the state of the funds, &c., to the Cives, the Theological Faculty, and the Senatus. The books purchased are selected by the Curators, subject to the approval of the Faculty of Divinity. The Professor of Divinity, who is *ex officio* Honorary Librarian, annually appoints an acting Librarian. Books may not be kept out of the Library longer than two months.

PORTRAITS AND BUSTS IN THE SENATE HALL, LIBRARY, COURT ROOM, ANATOMICAL MUSEUM, MUSIC CLASS ROOM, AND DOME.[1]

I. Portraits.

There are twenty-seven Portraits of Benefactors, Principals, Professors, and others, by Raeburn, Sir John Watson Gordon, and other Artists, in the Senate Hall, four in the Library, sixteen in the University Court Room, and one in the Music Class Room.

[1] There is a separate printed Catalogue of the Portraits and Busts in the University, and of the Torrie Collection. A detailed Catalogue will also be found in the Calendar for 1890-91, p. 61, as well as in the previous Calendars.

Portraits presented since 1890.

In Senate Hall.

James Lorimer, M.A., LL.D., Dr Jur., Professor of Public Law (1862-1890).

Joseph Black, M.D., Professor of Chemistry and Medicine (1766-1795).

In Court Room.

General Sir Joseph Straton, Benefactor of the University.

II. Busts.

There are forty Busts in the Upper Library Hall, two in the Anatomical Museum, and one in Room in Dome.

In order to honour and perpetuate the names of Benefactors who have founded Scholarships, Bursaries, or new Chairs in the University, the University authorities have made arrangements for placing their Busts or Portraits in the Library and University Court Room.

Regarding as Benefactors the eminent Professors who have elevated the character of the University by their writings or discoveries, the University desires to procure Portraits or Busts of James and David Gregory, Colin Maclaurin, Matthew Stewart, Dr Cullen, Dr James Gregory, Dr Alison, Dr Chalmers, Sir Chas. Bell, Lord Woodhouselee, Dr Thos. Chas. Hope, Professors Ross, Macdougall, Muirhead, Sellar, Campbell Fraser, and Sir Douglas Maclagan.

Busts presented since 1890.

In Library Hall.

Rt. Hon. John Inglis, D.C.L., LL.D., Lord Justice-General, Chancellor of the University (1868-1891).

John Rae, M.D., LL.D., Arctic Explorer.

James Miller, M.D., LL.D., F.R.S.E., &c., Professor of Surgery in the University (1842-64).

John Goodsir, F.R.S., Professor of Anatomy in the University (1846-1867).

In Students' Reading Room.

Thomas Carlyle, Rector of the University, 1865-1868, presented by Thomas M'Kie, Esq.

TORRIE FINE ART COLLECTION.

Sir James Erskine of Torrie, by a Will, dated April 1834, bequeathed to the University his Pictures, Bronzes, and Marbles, "for the purpose of laying a foundation for a Gallery for the encouragement of the Fine Arts." The collection is at present temporarily deposited in the National Gallery until funds can be obtained for its suitable display in the College, and for carrying more fully into effect the intentions of the testator.

The Pictures, forty-five in number, include choice specimens of the works of different Masters, especially in the Flemish and Dutch Schools.

The Marbles, seventeen in number, and twenty-three Bronzes, have been chosen with a correct appreciation of the merits of this department, and the whole collection reflects credit on the taste and public spirit of Sir James Erskine.

Museums.

A MUSEUM COMMITTEE, consisting of three members, not being members of the Senatus, appointed by the University Court, and of six appointed by the Senatus, is charged with the superintendence of all Museums belonging to the University, and of any collections, furniture, or apparatus, or objects acquired for the use of the University or of any class therein. The members are appointed by the University Court and Senatus respectively at their first meeting in the Winter Session of each year.

Members of Committee appointed by the University Court.

Sir James Alexander Russell, M.A., M.B., C.M., B.Sc. ; Patrick Heron Watson, M.D. ; John Duncan, M.D.

Appointed by the Senatus Academicus.

Professors Sir William Turner, Tait, Geikie, Fraser, Greenfield, Rutherford.

Of the following Museums several belong partly or wholly to the Professors of the respective subjects :—

1. NATURAL PHILOSOPHY MUSEUM. A large and very valuable collection of physical apparatus, chiefly modern.

2. MUSIC AND MUSICAL INSTRUMENTS.—A very interesting and valuable collection of acoustic and musical instruments.

3. GEOLOGICAL MUSEUM.—For class purposes, showing the characters of minerals and rocks, and the typical fossils of the different geological systems.

4. FINE ART MUSEUM.—A small collection of casts, photographs, and drawings, in the Dome above the portal, illustrating the main points in the history of classical art.

5. MUSEUM OF THE ROYAL BOTANIC GARDEN. — This Museum is open to Students.

6. PHYSIOLOGICAL MUSEUM.—A large collection of Physio-

logical Instruments, Microscopes and Microscopical Appliances, Diagrams, and Preparations, partly belonging to the Professor.

7. PRACTICE OF PHYSIC MUSEUM.—Pathological specimens, drawings, models, diagrams, etc., the property of the Professor.

8. ANATOMICAL MUSEUM.—Founded in 1800 by Dr Monro, *secundus*, who presented his own Anatomical Collection, and that of his father, to the University, "to be used by his successors for the purpose of demonstrating and explaining to the Students the structure, physiology, and diseases of the human body." In 1859, Sir David Monro, M.D., presented a collection of anatomical preparations, formed by his father, Dr Alexander Monro, *tertius*. Numerous additions were also made by Professor Goodsir, especially in the department of Comparative Anatomy, on whose death the Senatus purchased his Private Museum, and added it to the Collection. The Museum now contains several thousand specimens in illustration of Human Anatomy, both normal and pathological, and of Comparative Anatomy.

The Conservator will gratefully receive contributions of rare and interesting specimens from Graduates and former Students. He is especially desirous of making the collection thoroughly representative of the osteology of the different Races of Men.

The Collection was transferred in 1884-5 to the University New Buildings in Teviot Place, where it is arranged in a large and handsome Hall with two galleries. It is open at certain hours to all matriculated students. The pathological collection occupies the upper gallery. The spirit-preparations in illustration of normal Human and Comparative Anatomy are arranged in the lower gallery. The osteological collection is disposed in the cases on the floor, and suspended in the centre of the Hall. In 1887 the Henderson Trustees committed to the custody of the Conservator their valuable collection of crania and casts.

Conservator of the Museum, the Professor of Anatomy; Assistant-Conservator, Mr James Simpson.

9. CHEMISTRY MUSEUM.—Professor (afterwards Sir Lyon now Lord) Playfair, on his resignation of the Chair of Chem-

istry, presented to the University the chemical substances he had used in illustrating his lectures. The collection has been increased by gifts from chemical manufacturers and others, and by substances prepared in the University Laboratory.

10. The Obstetrical Museum, besides a few preparations left by Professor Hamilton, contains instruments, preparations, models, and diagrams, collected by Sir James Y. Simpson, and added to by the present Professor of Midwifery, to whom they belong.

11. The Museum of Natural History.—The old Museum, established in 1812 in the University, contained Zoological, Geological, and Mineralogical Collections, formed chiefly by Professor Jameson, for fifty years Professor of Natural History and Regius Keeper of the Museum. In 1854 it was transferred by the Town Council, then the Patrons of the University, to Government, and removed to the Natural History Department of the New Museum of Science and Art, where it is still accessible to Students of Natural History and Geology.

A Zoological Museum is now being formed in the University. Graduates and others interested will greatly aid in this important undertaking by presenting specimens to the Keeper—the Professor of Natural History.

12. Materia Medica Museum.—One of the most complete collections of medicinal and food substances in this country, founded by Professor Andrew Duncan. His successor, Sir Robert Christison, added many valuable specimens, mounted for the most part by himself with singular neatness. The present Professor has made extensive additions. The Museum has been greatly enriched by interesting donations from former members of the Class in all parts of the world. There is also a Students' Reading Museum, containing specimens of the medicinal substances used in this country, formed and arranged by the present Professor.

13. Surgical Museum.—This collection, formed by Professor Spence, has been largely extended by the present Professor, to whom it belongs. Many additions have been made,

both of pathological preparations and of plaster and gelatine casts, illustrative of Surgical Anatomy and Pathology. A complete catalogue may, on application, be consulted by practitioners of medicine.

ROYAL BOTANIC GARDEN AND ARBORETUM.

The Royal Botanic Garden, Inverleith Row, is connected with the University, in so far as the Professor of Botany delivers his Lectures in the Hall in the Garden.

The Garden is open daily. Specimens of plants for study are supplied to Students so far as practicable.

The Botanical Museum in the Garden is open to Students daily, and the University Herbarium, which is placed in the Garden, may be consulted between 10 and 1, and 2 and 5, under the direction of the Professor or the Curator.

The Botanical Laboratory in the Garden is open daily for work and original research.

Faculty of Arts.

Dean.—PROFESSOR CHRYSTAL, LL.D.

Students who do not intend to graduate in Arts may attend any of the Classes on payment of the Matriculation and the Class Fees, without having passed any Preliminary Examination. Those who intend to graduate must pass the Preliminary Examination. The Classes in the Faculty are now open to Women, except a few in which provision has not yet been made for teaching them. Provision has, however, been made to admit Women to Graduation in Arts who have received the requisite instruction at certain Extra-Academic Schools in Edinburgh in the subjects in which classes are not open to them in the University.

The classes will be opened as follows, and will meet daily (Saturdays excepted), unless otherwise stated. They will meet for the last time before the Christmas vacation on Friday, 17th December: will re-assemble on Tuesday, 4th January 1898, *and will be closed on Friday, 25th March* 1898. *The Annual Graduation Ceremonial in Arts, &c., will be held on Wednesday, 13th April* 1898.

Programme of Classes.

WINTER SESSION, 1897-98.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1]
I.—DEPARTMENT OF LANGUAGE AND LITERATURE.			
Junior Latin	12 Oct., 9 o'cl. & also on Mon. & Wed. 11 o'cl.	Prof. Hardie	£ 3 s. 3
Senior Latin[2]	12 Oct., 10 ,,		3 3
Honours Latin	14 Oct., 12 ,,		3 3
Junior Greek	12 Oct., 10 ,, & also on Tues., Thurs., & Fri., 11 o'cl.	Prof. Butcher	3 3
Senior Greek[2]	12 Oct., 11 o'cl.		3 3
Honours Greek	14 Oct., 10 ,,		3 3
Classical Archæology (Honours Course)	13 Oct., 5[3] ,,	Prof. Baldwin Brown	3 3
English	12 Oct., 4 ,,	Prof. Saintsbury	3 3
English Literature (Honours Course)[4]	13 Oct., 2 ,, 5 Jan., 2 ,,		3 3
English Language (Honours Course)[4]	13 Oct., 3 ,, 5 Jan., 3 ,,	G. Gregory Smith, M.A.	3 3
French (Pass)[2]	12 Oct., 3 ,,	Charles Sarolea, Ph.D., D.Litt.	3 3
French (Honours)	13 Oct., 4 ,,		3 3
Italian[5]	13 Oct., 5 ,,		3 3

[1] Fees for second, third, and subsequent attendances, see page 61.

[2] Students who wish to take the Classes of Senior Latin, Senior Greek, French or German, as qualifying for Graduation in Arts, must have previously passed in Latin (Higher Standard), Greek (Higher Standard), French, or German respectively, either as part of their Preliminary Examination or in addition thereto.

[3] The hour may be altered to suit the class.

[4] This Course may be divided into two Half Courses. Fee for each, £2, 2s.

[5] An Honours Course may be given by Dr Sarolea.

WINTER SESSION, 1897-98—*continued.*

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1] £	s.
I.—DEPARTMENT OF LANGUAGE AND LITERATURE—*cont.*				
German (Pass)[2]	12 Oct., 4 o'cl.	Otto Schlapp ...	3	3
German (Honours)	13 Oct., 3 ,,		3	3
Sanskrit (Junior Class)	13 Oct., 3 ,,	Prof. Eggeling	3	3
Do. (Senior Class)[3]	13 Oct., 4 ,,		3	3
Hebrew (Junior Class)	12 Oct., 1 ,,	Prof. Kennedy..	3	3
Do. (Senior Class)[3]	26 Oct., 2 ,,		3	3
Arabic[3] (*Mon., Wed., & Fri.*)	27 Oct., 3 ,,		3	3
Syriac[3] (*Tues. & Thurs.*)	26 Oct., 3 ,,		2	2
Celtic[3]	12 Oct., 4 ,,	Prof. Mackinnon..	2	2
Do. Advanced	18 Oct., 3 ,,		1	1
Gaelic Class	19 Oct., 3 ,,		1	1
II.—DEPARTMENT OF MENTAL PHILOSOPHY.				
Logic & Psychology[9]	12 Oct., 1 o'cl.	Prof. Seth	3	3
Metaphysics and Hist. of Philosophy (Honours Class)	19 Oct., 3 ,,		2	2[4]
Moral Philosophy	12 Oct., 2 ,,	Prof. Calderwood	3	3
Do. Honours Class	20 Oct., 3 ,,		2	2[4]
Political Economy[5]	12 Oct., 5 ,,	Prof. Nicholson	3	3[5]
Education (Theory, History, & Art of)	12 Oct., 3.10 ,,	Prof. Laurie	3	3
Philosophy of Law[6] (45 *Class Meetings*)	18 Oct., 2 ,,	Prof. Sir Ludovic Grant, Bart...	2	2
Natural Theology (Gifford Lectureship)	Dates will be afterwards announced.	Prof. Tiele, of Leyden	Free.	
III.—DEPARTMENT OF SCIENCE.				
Junior Mathematics	12 Oct., 12 o'cl.	Prof. Chrystal...	3	3
Senior Mathematics[7 8]	12 Oct., 9 ,,		3	3

[1] Fees for second, third, and subsequent attendances, see page 61.

[2] See footnote 2, page 55. Twenty Lectures on German Literature may be attended separately. Fee, £1, 1s.

[3] Students who wish to take the Classes of Sanskrit, Hebrew, Arabic, Syriac, or Celtic as qualifying for the M.A. Degree, must have previously passed a Preliminary Examination in these Languages equivalent in standard to the Examinations in Latin and Greek in the Preliminary Examination.

[4] When taken as a Graduation Course, £3, 3s.

[5] Or two Half-Courses, £2, 2s. each. Course up to Christmas qualifies in Economics for the B.Sc. in Agriculture. [6] Half-Course.

[7] Students who wish to take the Classes of Senior Mathematics or Natural Philosophy as qualifying for Graduation in Arts, must have previously passed the Intermediate or Higher Standard Examination in Mathematics either as part of their Preliminary Examination or in addition thereto.

[8] The first half of the Winter Graduation Course up to Christmas qualifies as a First Half-Course in Mathematics, and the second half, from Christmas to the end of the Session, as a Second Half-Course. *Any* First Half-Course, along with *any* Second Half-Course, taken subsequently, qualifies as a full Course of Instruction for Graduation.

[9] In Session 1898-99 the hour of the Logic Class will be changed to Two P.M.

WINTER SESSION, 1897-98—*continued.*

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees[1] £ s.
III.—DEPARTMENT OF SCIENCE—*continued.*			
Mathematics, Intermediate Honours..	13 Oct., 11 o'cl. (*Mon., Wed., Fri.*)	Prof. Chrystal...	3 3
Do. (Advanced Honours)	13 Oct., 10 o'cl. (*Mon., Wed., Fri.*)		3 3
Natural Philosophy[2]..	12 Oct., 11 o'cl.	Prof. Tait.....	3 3
Do. (Advanced Honours, *Mon., Wed., Fri.*).....	20 Oct., 12 ,,		3 3
Physical Laboratory..	18 Oct., 10 ,,		2 2
Natural Philosophy (Intermediate Honours, *Mon., Wed., Fri.*).....	13 Oct., 9 ,,	Cargill G. Knott, D.Sc.	3 3
Dynamics, Advanced Science (*Mon., Wed., Fri.*).....	13 Oct., 10 ,,		3 3
Astronomy (*Mon., Tues. Wed. Thurs.*)	13 Oct., 11 ,,	Prof. Copeland ..	3 3
Chemistry, with	12 Oct., 10 ,,	Prof. Crum	4 4
Practical Chemistry	1 Dec., 11 & 2 ,,	Brown	3 3
Zoology[3] (Elementary)	12 Oct., 12 ,,	Prof. Ewart....	4 4
Practical Zoology (Elementary).....	12 Oct., 11 ,,		2 2[4]
Advanced Zoological Laboratory.....	... ...		
Morphology of Vertebrates	13 Oct., 2 ,,	J. Beard, D.Sc...	2 2
Botany (Advanced)	12 Oct., 11 ,,	Prof. Balfour..	2 2[5]
Practical Botany (Advanced)	12 Oct., 11 ,,		3 3[5]

[1] For second, third, and subsequent attendances, see page 61.

[2] See footnote 7, page 56.

[3] With Practical Zoology, a full Course, but the whole Course must extend over at least 75 separate days. Any student whose attendance on the Elementary Course of Lectures and the Elementary Practical Class of Botany or Zoology does not entitle him to a full Certificate for Graduation in Arts, may make up the seventy-five attendances required on separate days, by attending twenty-five Lectures of any other Course in the Botanical or Zoological Department, as the case may be, without additional fee.

[4] Besides charge of 10s. for Laboratory Expenses.

[5] Besides Garden fee of 5s.

WINTER SESSION, 1897-98—*continued.*

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1] £	s.
III.—DEPARTMENT OF SCIENCE—*continued.*				
Geology	12 Oct., 4 o'cl.	Prof. Geikie	4	4
Practical Geol. and Min. (Graduation Half-Course) up to Christmas	15 Oct., 2 ,,	Prof. Geikie	2	2
IV.—DEPARTMENT OF HISTORY AND LAW.				
History (Honours Course: British Constitl. History; 1384-1563)	12 Oct., 4 o'cl. (*Mon., Tu., Th.*)	Prof. Kirkpatrick	3	3
History (British, especially 1215-1328)	12 Oct., 12 o'cl.	Prof. Prothero	3	3
History (Honours Course on "Great Britain and Europe, 1815-1878")	13 Oct., 10 ,,	Prof. Prothero	3	3
Constitutional Law and History[2]	15 Oct., 5 ,,	Prof. Kirkpatrick	4	4
Roman Law	15 Oct., 4 ,,	Prof. Mackintosh	4	4[3]
History of Roman Law (44 *Class Meetings*)[4]	... ...	Prof. Mackintosh	2	2
Ecclesiastical History	26 Oct., 11 ,,	Prof. Taylor	3	3
Archæology and Art (History of)	12 Oct., 3 ,,	Prof. Baldwin Brown	3	3
Classical Archæology (Honours Course, *Three days a week*)	13 Oct., 5 ,,	Prof. Baldwin Brown	3	3
Public International Law (45 *Class Meetings*)[4]	4 Jan., 2 ,,	Prof. Sir Ludovic Grant, Bart.	2	2

SUMMER SESSION, 1898.

The Classes will be opened as follows, and will be closed on Friday, 15th July.

Classes.	Days and Hours.	Profs. and Lecturers.	Class Fees.[1] £	s.
I. DEPARTMENT OF LANGUAGE AND LITERATURE.				
Senior Latin (Graduation Half-Course)[5][6]	3 May, 9 o'cl.	James Mill, M.A.	2	2

[1] For second, third, and subsequent attendances, see page 61.

[2] Full Course, qualifying both for Arts and for Law Graduation, in two distinct Half-Courses.

[3] Fee for Winter Session. For Winter and Summer, £5, 5s.

[4] Half-Course.

[5] See footnote 2, page 55.

[6] The full course may be completed by attendance either for another Summer Session or for half a Winter Session.

SUMMER SESSION, 1898—*continued.*

Classes.	Days and Hours.	Profs. and Lecturers.	Class Fees.[1] £ s. d
1. DEPARTMENT OF LANGUAGE AND LITERATURE—*continued.*			
Honours Latin (Graduation Half-Course)	3 May, 10 o'cl.	James Mill, M.A.	2 2 0
Senior Greek (Graduation Half-Course)[5 6]	3 May, 10 ,,	A. Douglas Thomson, M.A., D.Litt.	2 2 0
Honours Greek (Graduation Half-Course)	3 May, 9 ,,		2 2 0
English Literature (Honours Graduation Half-Course, *Mon., Wed., & Fri.*)	4 May, 12 ,,	G. Gregory Smith, M.A.	2 2 0
Sanskrit	3 May, 3 ,,	Prof. Eggeling.....	3 3 0
Elementary Hebrew[2] ...	3 May, 10 ,,	Prof. Kennedy and Assistant.	1 11 6
Elementary Arabic.....	3 May, 11 ,,		2 2 0
2. DEPARTMENT OF MENTAL PHILOSOPHY.			
Ancient Philosophy (Honours Graduation Half-Course, *Tues. and Thurs.*)..	3 May, 11 o'cl.	R. P. Hardie, M.A.	2 2
Ancient Philosophy Honours Graduation Half-Course, *Mon., Wed., & Fri.*)	4 May, 11 ,,		2 2
Ethics (Honours Graduation Half-Course, *Mon., Wed., Fri.*)...	4 May, 12 ,,	Charles Douglas, M.A., D.Sc.	2 2
Psychology (Honours Graduation, Half-Course, *Mon., Wed., Fri.*).....	4 May, 11 ,,		2 2
3. DEPARTMENT OF SCIENCE.			
Senior Mathematics (First Graduation Half-Course...)[3 4]...	3 May, 11 o'cl.	Chas. Tweedie, M.A., B.Sc.	2 2
Senior Mathematics (Second Graduation Half-Course)[4].....	3 May, 12 ,,		2 2

[1] For second, third, and subsequent attendances, see page 61.
[2] To prepare Students for entering the Junior Class in Winter Session.
[3] See footnote 7, page 56. [4] See footnote 8, page 56.
[5] See footnote 2, page 55.
[6] The full course may be completed by attendance either for another Summer Session or for half a Winter Session.

SUMMER SESSION, 1898—*continued.*

Classes.	Days and Hours.	Profs. and Lecturers.	Class Fees.[1]
3. DEPARTMENT OF SCIENCE—*continued.*			£ s.
Honours Mathematics (Graduation Half-Course)	3 May, 10 o'cl.	Chas. Tweedie, M.A., B.Sc..	2 2
Physical Laboratory	3 May, 10 ,,	Prof. Tait and Assistant.	2 2
Physics (*mainly for Students of Medicine*)	3 May, 12 ,,	Prof. Tait.	3 3
Elementary Dynamics	3 May,	C. G. Knott, D.Sc.	2 2
Advanced Experimental Physics	3 May, 10 ,,	W. Peddie, D.Sc.	2 2
Practical Chemistry	3 May, 2 ,,	Professor Crum Brown.	3 3
Chemistry (Organic)	3 May, 1 ,,		2 2
Zoology (Elementary)[2]	3 May, 12 ,,		4 4
Do. (Elem. Pract.)	3 May,[3]		2 2[4]
Advanced Zoology (Comp. Morphol. of Invertebrata and Adv. Lab. Course)	3 May,[3]	Prof. Ewart	3 3[4]
Natural History Labor.			6 6[4]
Invertebrate Zoology	3 May, 2 ,,		2 2
Do. (with Lab. work)			3 3[4]
Botany[5]	3 May, 8 ,,		4 4[6]
Practical Botany	3 May, 9 ,,	Prof. Balfour	2 2[6]
Field Demonstrations on *Saturdays*.			
Geology (Graduation Half-Course, *Mon., Wed., Fri.*)	4 May, 4 ,,	Prof. Geikie	3 3
Field Demonstrations *on Saturdays*			

TUTORIAL CLASSES.

Classes.	Days and Hours.	University Assistants.	Class Fees.
Junior Latin (Preliminary Class)	3 May, 12	James Mill, M.A., Lecturer on Latin Literature.	£ 2 s. 2
Junior Greek (Preliminary Class)	3 May, 11	A. Douglas Thomson, M.A., D.Litt., Lecturer on Greek Lit^re.	2 2

[1] Fees for second, third, and subsequent attendances, see page 61.
[2] See footnote 3, page 57.
[3] At hours to be arranged.
[4] Besides charge of 10s. for Laboratory Expenses.
[5] With Practical Botany a full Course, but the whole Course must extend over 75 separate days. See footnote 3, page 57.
[6] Besides Garden Fee of 5s.

SUMMER SESSION, 1898—*continued.*

Classes.	Days and Hours.	Profs. and Lecturers.	Class Fees.[1]
TUTORIAL CLASSES—*continued.*			
Natural Philosophy (Advanced Honours)	3 May, 9	William Peddie, D.Sc., Lecturer on Natural Philosophy.	£2 2
Formal Logic (Preliminary Class, Fifteen Lectures, *Tues. and Thurs.*)	10 May, 12	R. P. Hardie, M.A., Lecturer on Logic and Metaphysics.	£1 1

FEES FOR SECOND, THIRD, AND SUBSEQUENT ATTENDANCES.

1. *Ordinary Graduation Classes*:—(1.) Second attendances on £4, 4s. Courses, £3, 3s.; third or subsequent attendances, £1, 1s. (2.) Second attendances on £3, 3s. Courses, £2, 2s.; third or subsequent attendances, £1, 1s. (3.) Ordinary Celtic Class, if not taken for Graduation, £2, 2s.; second or subsequent attendances, £1, 1s.

2. Second attendances on £2, 2s. Lecture Courses (not being Honours Half-Courses), £1, 11s. 6d.; third or subsequent attendances, £1, 1s.

3. When fee for first attendance is less than £2, 2s., no reduction for second or subsequent attendances.

4. *Honours Courses*:—(1.) *Full Honours* £3, 3s. *Courses*, second attendances, no reduction; third or subsequent attendances, £2, 2s. (2.) *Half-Honours* £2, 2s. *Courses*—Second attendances, no reduction; third or subsequent attendances, £1, 1s.

5. No reduction for Laboratory or Practical Courses.

The following means are afforded for Practical Instruction:—

LABORATORIES.

THE PHYSICAL LABORATORY, established with the view of affording Students a practical knowledge of the construction and use of physical apparatus, and the mode of conducting experimental inquiries, is open daily from 10 to 3, under the superintendence of Professor Tait.

The ROYAL OBSERVATORY is open to Students of Astronomy on Friday evenings from 8 P.M.

MUSEUMS. See pages 51-54.

Matriculation, &c. See pages 27-30.

For the CHEMICAL LABORATORIES, ZOOLOGICAL LABORATORIES, ROYAL BOTANIC GARDEN LABORATORY, GEOLOGICAL AND PETROLOGICAL LABORATORY, see Faculty of Science.

[1] Fees for second, third, and subsequent attendances, see above.

Courses of Lectures.[1]

1897-1898.

I.—DEPARTMENT OF LANGUAGE AND LITERATURE.

HUMANITY—(Latin).

PROFESSOR HARDIE.

Junior Class—Taught by the Assistant, under supervision of the Professor: 9 to 10, five days a week, and Mondays and Wednesdays, 11 to 12. The work of the Class consists of—

1. Readings of some Latin author, such as Virgil, Horace, Ovid, or Tibullus, Livy, Sallust, and Cicero.
2. Lectures on Roman History or Literature.
3. Exercises in Latin Prose Composition.
4. Translation of passages from Latin into English, and from English into Latin "at sight."
5. Written Examinations.

Books recommended.—Bradley's Arnold's Latin Prose. Allen's Second Latin Exercise Book. Pelham's Outlines of Roman History. Wilkins' Primer of Roman Literature. Wilkins' Primer of Roman Antiquities.

During the Winter Session 1897-98 the following books will be read:—Livy, Bks. V. and XXII.; Cicero, *In Catilinam;* Ovid, *Fasti*, Bk. IV.; Horace, *Satires*, Bk. II.

Senior Class—10 to 11, five days a week.

This is the class which qualifies for the ordinary Degree of M.A.[2] The work of the Class consists of—

1. Readings of some Latin author, such as Virgil, Horace, Cicero (*Letters* or *Speeches*), Tacitus.
2. Lectures on Roman History or Literature.
3. Weekly Exercises in Latin Prose.
4. Translation of Unseen Passages.
5. Written Examinations.
6. Latin Verse Composition (voluntary).

[1] The annual amount payable for Matriculation, Class Fees, &c., of the regular Course in Arts and Graduation Fee may be estimated at about £10, 10s.

[2] See footnote 2, page 55.

Books recommended.—Gildersleeve and Lodge's Latin Grammar ; Lindsay's Historical Latin Grammar ; Potts' Hints towards Latin Prose Composition ; Pelham's Outlines of Roman History ; Leigh and How's History of Rome ; Capes' Early Empire ; Cruttwell's History of Latin Literature ; Mackail's Latin Literature ; Companion to Latin Authors (Middleton and Mills) ; Rich's Dictionary of Antiquities.

During the Winter Session 1897-98 the following books will be read :—Virgil, *Eclogues* and *Æneid*, II. ; Horace, *Odes*, II. ; Cicero, *Pro Murena ;* Martial, III.

Third (Honours) Class—12 to 1.

The Third (Honours) Latin Class meets four days a week. It is intended to assist the studies of Candidates for Scholarships and Graduation with Honours. The work consists of—

1. Readings and explanations of the more difficult Latin authors, such as Tacitus, Lucretius, Plautus, Martial, &c.

2. Lectures on Roman History and Literature, chiefly in connection with the Books read in the Class.

3. Composition, and Translation of Unseen Passages.

4. Occasional Critical Papers and Essays.

5. Written Examinations on the work done in the Class.

During the Winter Session the following books will be read :—Plautus, *Trinummus ;* Lucretius, V. ; Quintilian, X. ; Tacitus, *Histories*, III.-V.

Summer Session, 1898.

JAMES MILL, M.A., *Lecturer.*

Senior Class—9 to 10, five days a week.

This class qualifies as a half-course for Graduation.[1] The work consists of—

1. The reading of the Latin authors prescribed for the Degree Examination in October 1898 and April 1899.

2. Lectures on Roman Literature, chiefly bearing on the authors read.

3. Lectures on Roman History, treating of the period prescribed for the Degree Examination.

[1] See footnote 2, page 55.

4. Exercises in Latin Prose Composition.

5. Written Examinations on the work done in the Class.

6. Translation of passages from Latin into English, and from English into Latin "at sight."

The full Course may be completed by attendance either for another Summer Session or for half a Winter Session.

Third (Honours) Class—10 to 11.

This Class, in the Summer Session, qualifies as a half-course for Graduation with Honours in Classics. It meets four days a week, and is intended to assist the studies of Candidates for Scholarships, for Graduation with Honours, and for the Indian Civil Service. The work consists of:—

1. Readings and explanations of some of the more difficult Latin authors, such as Tacitus, Lucretius, Plautus, Martial, Juvenal, Lucan, &c.

2. Lectures on Roman History and Literature, chiefly in connection with the Books read in the Class.

3. Essays on questions arising out of the Lectures or Books read, and exercises in Latin Prose Composition.

4. Written Examinations on work done in the Class, and on subjects prescribed for voluntary reading.

During the Summer Session of 1898, the books read will be selected from the programmes of work for Honours Graduation in April 1899 and April 1900.

Tutorial Class.

This Junior Class is intended for students preparing for the Preliminary Examination in October, and the work will be selected with that view. Special attention is directed to Latin Prose Composition, one exercise being done with the Class daily, and two written exercises done and corrected in each week.

GREEK.

PROFESSOR BUTCHER.

Junior Class—Taught by the Assistant, under supervision of the Professor: 10 to 11 o'clock, five days a week, and 11 to 12 on Tuesdays, Thursdays, and Fridays. The work consists of—

1. Readings of some Greek author, as Xenophon, Lucian, Plato (an easy dialogue), Homer, Euripides, or Aristophanes (selections).
2. Lectures on Greek History or Literature.
3. Exercises in Greek Prose Composition.
4. Translation of Unseen Passages.
5. Written Examinations.

Books recommended.—W. G. Rutherford's Greek Grammar, and First Greek Syntax; F. E. Thompson's Elementary Greek Syntax; Clyde's Greek Syntax; Jebb's Primer of Greek Literature; Peile's Primer of Philology; Fyffe's Primer of Greek History; Oman's History of Greece, or Cox's General History of Greece, or W. Smith's History of Greece.

Senior Class—11 to 12, five days a week.

This is the class which qualifies for the ordinary Degree of M.A.[1] The work consists of—

1. Readings of some Greek author, such as Thucydides, Demosthenes, Herodotus, Plato; Homer; a play of Aeschylus, Sophocles, Euripides, or Aristophanes.
2. Lectures on Greek Literature, History, or Philosophy.
3. Greek Prose Composition, or Translation of an Unseen Passage once a week, and a Lecture on the passage when the exercises are returned.
4. Written Examinations on the work done in the Class, and on subjects prescribed for voluntary reading.
5. Greek Verse Composition (voluntary).

Books recommended.—W. G. Rutherford's Greek Grammar, and First Greek Syntax; Goodwin's Greek Grammar; Goodwin's Greek Moods and Tenses; Greek Syntax, by F. E. Thompson; Sidgwick's Greek Prose Composition; Jebb's Primer of Greek Literature; Müller & Donaldson's History of Greek Literature; Jevon's History of Greek Literature, or Mahaffy's History of Greek Literature; Holms' History of Greece (Translation, Macmillan); Oman's History of Greece, or Cox's General History of Greece, or W. Smith's History of Greece; Greek Verse Composition (Sidgwick and Morris); A Manual of Comparative Philology, by Giles.

[1] See footnote 2, page 55.

During the Winter Session 1897-98, the following books will be read :—Aristophanes, *Birds;* Plato, *Meno;* and a play or two of *Euripides.*

Third (Honours) Class—10 to 11.

This Class meets four days a week. It is intended to assist the studies of Candidates for Scholarships and Graduation with Honours. The work consists of—

1. Readings and explanations of some of the more difficult Greek authors, such as Thucydides, Demosthenes, Plato, Aristotle, Aeschylus, Pindar, &c.
2. Lectures on Greek Literature, History, or Philosophy.
3. Greek Composition, and Translation of Unseen Passages.
4. Occasional Critical Papers and Essays.
5. Written Examinations on the work done in Class.

During the Winter Session 1897-98, the chief work of the Class will be Aristotle's *Poetics;* Aeschylus, *Agamemnon;* Demosthenes, *Androtion.*

Summer Session, 1898.

A. DOUGLAS THOMSON, M.A., D.LITT., *Lecturer.*

Senior Class—10 to 11, five days a week.

This Class qualifies as a half-course for Graduation.[1] The work consists of—

1. The reading of the Greek authors prescribed for the Degree Examination in October 1898 and April 1899.
2. Lectures on Greek History or Literature.
3. Greek Prose Composition, and Translation of Unseen Passages.
4. Written Examinations.

The full Course may be completed by attendance either for another Summer Session or for half a Winter Session.

Third (Honours) Class—9 to 10.

This Class meets four days a week. It is intended to assist the studies of Candidates for Scholarships, for Graduation with Honours, and for the Indian Civil Service. The work consists of—

See footnote 2, page 55.

1. The reading of books selected from the programme of work for Graduation with Honours in 1899 and 1900.

2. Lectures on Greek History or Literature.

3. Greek Prose Composition, and Translation of Unseen Passages.

4. Written Examinations.

This Class qualifies as a half-course for Graduation with Honours. The full Course may be completed by attendance either for another Summer Session or for half a Winter Session.

Junior (Tutorial) Class—11 to 12, five days a week.

This Class is intended for Students preparing for the Preliminary Examination in October next, and the work to be done will be selected with that view.

CLASSICAL ARCHÆOLOGY.

PROFESSOR BALDWIN BROWN.

Classical Archæology may be taken as one of the optional subjects for Honours in Classics.

An Honours Course of fifty lectures will be delivered in the Winter Session, 1897-8, in the Fine Art Class Room, on Mondays, Tuesdays, and Wednesdays, at 5 P.M.[1]

Additional Class-meetings of a tutorial character will be held as often as is found desirable, at hours to be afterwards arranged. The treatment of the subject will embrace—

1. A general survey of the field of study.

2. An examination of selected passages from ancient authors, bearing on the History of Classical Art.

3. A special study of one particular branch, the theme for 1897-8 being the Types of Greek Coins, with special reference to their value as illustrating Greek Sculpture. (Other special subjects, such as the History of Greek Vase Painting, or Greek Tektonics, will be taken up in succeeding Sessions.)

The text-books will be—Overbeck's "Schriftquellen" (a collection of passages from ancient authors bearing on Classical Art); Murray's "Handbook of Greek Archæology" (London, John Murray); Murray's "History of Greek Sculpture," 2nd Ed.

[1] The Class hour may be changed if another hour is found more convenient.

(London, John Murray), E. Gardner's "Handbook of Greek Sculpture" (Macmillan & Co.) ; and, for the special subject, Gardner's "The Types of Greek Coins" (Cambridge, University Press).

The subject will be treated from the artistic standpoint, which is now more and more insisted on by writers on this subject. A high degree of accuracy and considerable acquaintance with the chief Greek and Latin authorities will be required of Candidates for Honours, but no previous special knowledge either of Art or of Archæology will be expected of those joining the Class. The different branches, so far as time permits, will be opened up from the beginnings, and students will be assisted in the Tutorial Classes to understand technical terms and to appreciate the artistic points which come up for discussion in the Lectures. They will also have access at suitable times to the collection of illustrations referred to in the Lectures, and to the Class Library, which contains some of the standard works.

RHETORIC AND ENGLISH LITERATURE.

PROFESSOR SAINTSBURY.

(*Ordinary Course*, 4 *to* 5, *five days a week throughout the Winter Session.*)

On Mondays, Wednesdays, and Fridays, the Lectures will be devoted, before Christmas, to a survey of Style both in Poetry and Prose from Chaucer to the Nineteenth Century ; after Christmas to a similar survey of the General History and Contents of the Subject from the earliest texts to the present day. On three Fridays during the Session there will be Class Examinations, and at convenient intervals between them written Exercises will be done on Friday in Class. Two subjects for longer written Essays will also be given, one before, one after Christmas : and there will be Prizes for these Essays, distinct from the general Class Prizes.

On Tuesdays and Thursdays the Lectures will take for text the books prescribed for the year, some of which will be read page by page and line by line, while others will be dealt with more summarily. A certain number of these Lectures will be specially devoted to the subject of Rhetoric, the texts being

De Quincey's Essay, with Whately's *Rhetoric*, Bain's *Composition and Rhetoric*, and Hodgson's *Errors in English* for illustration. The prescribed books will always include parts of Chaucer, Spenser, Shakespeare, and Milton, together with portions of other writers from the sixteenth century to the present day. The Lectures on Style will be illustrated from Ward's *Poets* and Craik's *Prose Selections*.

(*Honours Course, 2 to 3, three days a week throughout the Winter Session.*)

The Professor will also give an Honours Course in two Halves of twenty-five Lectures each. The Half-Course before Christmas will be a Higher Rhetoric Course on the Theory of Prose and Verse in English, opening with a sketch of the History of Literary Criticism from Aristotle onwards. The course after Christmas will be devoted to some special subject connected with the Honours period of the year. The subject for 1898 will be "The Study of Nature in the Eighteenth Century": that for 1899, "English Poetry from 1798 to 1825."

Honours Courses.

G. GREGORY SMITH, M.A., *Lecturer.*

OLD AND MIDDLE ENGLISH.

A full Honours Course of Fifty Lectures (in two parts of Twenty-five Lectures each) on Old and Middle English will be delivered in the Winter Session.

A.—HISTORY OF OLD AND MIDDLE ENGLISH.

The work of this Class (Monday, Wednesday, and Friday from 3 to 4, beginning Monday, 18th October) will consist of—

1. An Historical Outline of the Development of the English Language, in regard to Phonetics, Accidence, Syntax, and Vocabulary. Special attention will be given to the Dialects.

2. English Palæography.

Books for reference.—Sweet's *Oldest English Texts* and *History of English Sounds*; Ellis's *Early English Pronunciation*; Sievers's *Old English Grammar* (ed. Cook); Morris and Kellner's *Historical Outlines of English Accidence*; Kellner's

Historical Outlines of English Syntax; Skeat's *Principles of English Etymology* (First and Second Series); Oliphant's *Old and Middle English;* Murray's *Dialects of Southern Scotland;* Skeat's *Facsimiles of Old English Manuscripts.*

B.—Old and Middle English Texts.

The work of this Class (Monday, Wednesday, and Friday from 3 to 4, beginning Wednesday, 5th January) will consist of (*a*) Readings in Old and Middle English, including some of the texts prescribed for the Examination for the Honours Degree, and (*b*) Translation of Unseen Passages.

Summer Session, 1898.

English Literature.

An Honours Half-Course of Twenty-five Lectures on the Literature of the Nineteenth Century.

The Class will meet on Monday, Wednesday, and Friday from 12 to 1.

Books for reference. — Saintsbury's *Nineteenth Century Literature;* Volumes in the "English Men of Letters" Series; Prefaces in Ward's *English Poets*, Vol. IV., and Craik's *English Prose*, Vol. V.

FRENCH LANGUAGE AND LITERATURE AND ROMANCE PHILOLOGY.

CHARLES SAROLEA, PH.D., LITT.D., *Lecturer.*

Ordinary Graduation Class—3 to 4, five times a week.

This class qualifies for the Ordinary Degree of M.A.[1] The work consists of—

1. Readings of some French author, such as Montaigne, Corneille, Racine, Molière, Boileau, Voltaire, Rousseau, and V. Hugo.

2. Lectures on French Literature or History.

3. French Prose Composition, or Translation of an unseen passage once a week, and a lecture on the passage when the exercises are returned.

[1] See footnote 2, page 55.

4. Written Examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

5. Lectures on the Philology and Historical Development of the French language.

Books to be read during the Winter Session 1897-98:—Victor Hugo, *Napoléon le Petit*, *William Shakespeare;* Victor Hugo, *Les Châtiments*, *L'Année terrible;* Taine, *Extracts;* Rousseau, *Extraits; Chanson de Roland.*

Honours Class—4 to 5.

The Honours French Class meets four days a week. It is intended to assist the studies of Candidates for Scholarships and Graduation with Honours. The work consists of—

1. Readings and explanations of Old French Texts, and of some of the more difficult Modern French authors.

2. Lectures on French Literature or History, and on Romance Philology.

3. French Composition and Translation of unseen passages.

4. Occasional critical papers and essays.

5. Written Examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

Books to be read during the Session 1897-98:—V. Hugo, *La Légende des Siècles*, *Shakespeare*, *Chanson de Roland;* A. Leroy-Beaulieu, *Revolution et Liberalisme;* Michelet, *Révolution;* Lanson, *Littérature française;* Taine, *Extracts;* Faguet, *Politiques et Moralistes.*

ITALIAN LANGUAGE AND LITERATURE AND ITALIAN PHILOLOGY.

Course of Fifty Lectures on the Honours Standard.

CHARLES SAROLEA, PH.D., LITT.D., *Lecturer.*

This Class meets three days a week. The work consists of—

1. Readings and explanations of Italian Classics of the 14th and 16th century (with special regard to Dante), and of some of the more difficult modern Italian authors.

2. Lectures on Italian Literature and History, and on Italian Philology.

3. Occasional critical Papers and Essays.

4. Written Examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

Books to be read during the Session 1897-98 :—Dante, "Divina Commedia," "De Monarchia"; Manzoni, "I promessi Sposi"; Leopardi, Prose ; D'Ancona, "Manuale della Litteratura italiana."

Students who desire to attend this Course are requested to send their names to Dr Sarolea, University, before 1st October.

GERMAN LANGUAGE AND LITERATURE AND TEUTONIC PHILOLOGY.

OTTO SCHLAPP, *Lecturer.*

Ordinary Graduation Class—4 to 5, five times a week.

This class qualifies for the Ordinary Degree of M.A.[1] The work consists of—

1. Readings of some Middle High German and Sixteenth Century Texts, and of such modern German authors as Winckelmann, Klopstock, Lessing, Herder, Goethe, Schiller, Jean Paul F. Richter, Heine, Uhland, Gutzkow, Freytag, Riehl, and Storm.

2. Lectures on German Literature or History.[2]

3. German Prose Composition, or translation of an unseen passage, or a critical paper or German essay at least once a week, and a lecture on the papers when returned.

4. Written Examinations on the work done in the Class, and on subjects prescribed for voluntary reading.

5. Lectures on the Philology and Historical Development of the German Language.

Books recommended.—Weisse, *German Grammar;* Vietor, *German Pronunciation;* Duden, *Etymologie der Neuhochdeutschen Sprache;* Behagel, *Die Deutsche Sprache;* O. Weise,

[1] See footnote 2, page 55.

[2] These lectures, a syllabus of which will be published in due time, will be delivered *in German* on Fridays, and may be taken as a separate course on payment of the Five Shillings University Entrance Fee, and a Class Fee of One Guinea.

Unsere Muttersprache; Koch, *Geschichte der Deutschen Litteratur* (Göschen); Roquette, *Geschichte der Deutschen Dichtung;* W. Wackernagel (ed. E. Martin), *Geschichte der Deutschen Litteratur.*

During the Winter Session 1897-98 the following books will be read or interpreted :—Walther ; *Kirchenlied,* etc. ; *Wallenstein;* Goethe, *Gedichte.*

Honours Class—3 to 4.

The Honours German Class meets four days a week. It is intended to assist Candidates for Scholarships and Graduation with Honours. The work of this Class is carried on in *German,* and consists of—

1. Readings and explanations of Old Middle and Early Modern High German Texts, and of some of the more difficult modern authors.

2. Lectures on German Literature or History.

3. German Composition, Translation of unseen passages, occasional critical papers and German essays, and a lecture on the papers when returned.

4. Written Examinations on the work done in Class, and on subjects prescribed for voluntary reading.

5. Lectures on the Philology and History of the German Language.

Books recommended.—In addition to those mentioned for Ordinary Graduation Class: D. Sanders, *Deutscher Wortschatz;* F. Kluge, *Etymologisches Wörterbuch der deutschen Sprache;* F. Blatz, *Neuhochdeutsche Grammatik;* Victor Henry, *Comparative Grammar of English and German;* Hermann Paul, *Mittelhochdeutsche Grammatik;* W. Scherer, *Geschichte der deutschen Litteratur;* Jul. Schmidt, *Geschichte der deutschen Litteratur von Leibniz bis auf unsere Zeit.*

During the Session 1897-98 the following books will be read or interpreted :—*Althochdeutsche Litteratur; Walther von der Vogelweide,* ed. Bartsch ; Goethe, *Faust;* Schiller, *Naive und sentimentalische Dichtung;* Winckelmann, *Mustastücke.*

SANSKRIT AND COMPARATIVE PHILOLOGY.

PROFESSOR EGGELING.

A.—Sanskrit Language and Literature.

1. *Junior Class.*—Grammar and Exercises. Easy Texts (from Lanman's Reader). Easy translations from English into Sanskrit.

2. *Senior Class.*—Repetition of Grammar. Translations from English into Sanskrit. Texts, such as the Hitopadeśa, Kālidāsa's Raghuvanśa or Śakuntalā; Mricchakatikā; Manu's Institutes of Law; selected Hymns of the Rigveda (Lanman's Reader).

The Senior Class will be the Graduating Class in Sanskrit for the Ordinary M.A.; but those who attend with a view to Graduation must previously have passed an examination under Sect. IV., subs. 3 of the Ordinance, which will include plain passages for translation from and into Sanskrit, and grammatical questions.

Those who propose, in a subsequent session, to take up Sanskrit as a graduation subject, may attend the Junior Class during the Session 1897-98.

B.—Comparative Philology.

During the Session 1897-98, the Professor will be prepared to deliver a course of Fifty Lectures on the Principles of Indo-European Philology and the history of Linguistic Studies, provided a sufficient number of Students give in their names. This course will qualify as one of the optional Honours Classes in connection with Classical Honours.

HEBREW AND SEMITIC LANGUAGES.

PROFESSOR KENNEDY.

See Courses under Faculty of Divinity.

CELTIC.

PROFESSOR MACKINNON.

The Course for 1897-8 will be arranged as follows :—

I. *Lectures.*—At the commencement of the Session a course of fifteen to twenty lectures will be delivered on The Early History and Literature of the Scottish Highlands, and in March 1898 a similar course on Gaelic Inflexions and Syntax.

2. *Reading and Exposition* (from middle of November 1897

till end of February 1898).—(1) Scottish Gaelic: Extracts for Reading, Part II.; Stewart's Grammar. (2) Irish Gaelic: Keating's Three Shafts of Death; O'Donovan's Grammar. (3) Old Gaelic: Extracts for Reading, Part II.; Windisch's Grammar and Irische Texte.

3. *Translations from English into Modern and Old Gaelic.*

Any student who attends this Class with a view to Graduation in Arts must previously have passed an examination (under Sect. IV., subs. 3 of the Ordinance), which will be in Scottish Gaelic, or Irish Gaelic, or Welsh; and will include translations from and into English, with grammatical, literary, and easy philological questions.

The fee for a Student who attends with a view to graduation is £3, 3s.

An Advanced Class will meet in the Winter Session, 1897-98, on Monday and Friday, at 3 P.M. The Class will read and transcribe Old Gaelic Texts.—Fee, £1, 1s.

A Gaelic Class for Junior students will meet in the Winter Session 1897-98, Tuesday, Wednesday, and Thursday, at 3 P.M. Students will read, on Tuesday and Thursday, Modern Scottish and Irish Gaelic, and commence the study of Old Gaelic. Grammar and Exercises on Wednesday.—Fee for this class, £1, 1s.

Text-Books.—Extracts for Reading, Parts I. and II.; Stewart's and Joyce's Grammar; Windisch's Grammar.

II.—DEPARTMENT OF MENTAL PHILOSOPHY.

LOGIC AND METAPHYSICS.

PROFESSOR SETH.

Logic and Psychology—Junior Class—1 to 2.

The course in this class falls into three parts:—

(1) Elements of Logic, Deductive and Inductive; (2) Outline of the main facts of Empirical Psychology, dealing more particularly with the facts and processes of cognition; (3) Introduction to the questions of philosophy, with special reference to the history of modern philosophy in England.

1. In the Logical part of the course the text-book used is Jevons's "Elementary Lessons in Logic."

It is extremely desirable that students, before entering the class, should have familiarised themselves with the main doctrines of Formal Logic; and a tutorial class (Fifteen Lectures) for those who desire it is held in summer by Mr Hardie, Assistant to the Professor. An examination is held about a fortnight after the opening of the Winter Session to test the knowledge of the class. It embraces the first seventeen Lessons in Jevons with the exception of Lessons 4, 6, 7, 10, 11, and 13; for Lesson 10 students should substitute a printed chapter which they may obtain on application at the Matriculation Office. For those who fail to reach a reasonable standard in this examination, separate tutorial meetings will be held during the early part of the session.

The Lectures in Logic will assume this elementary knowledge to have been acquired, and will be devoted mainly to the principles of the subject. The chief theories of the Judgment and the ultimate nature of Inference will be discussed and references given to more advanced text-books.

2. In the Psychological division of the course no text-book is prescribed, but frequent reference is made to the leading works on the subject, and a manual such as Sully's "Outlines," Höffding's "Outlines," James's "Text-book," or Baldwin's "Elements," may be usefully read in connection with the lectures.

The lectures cover the chief topics of the Psychology of Cognition, with the Psychology of the Feelings and the Will in outline.

3. The Philosophical lectures give a sketch of the development of speculative thought in Ancient Greece and then pass to the beginnings of Modern Philosophy. Bacon, Descartes, Locke, Berkeley, and Hume are studied in succession.

Professor Fraser's "Selections from Berkeley" and certain chapters of Locke's "Essay" and Hume's "Enquiry" are used in connection with the lectures as an introduction to the problems of modern philosophy.

Metaphysics and History of Philosophy—Honours Class—3 to 4.

This Class, an Honours Course of fifty Lectures, is intended for those who have attended the ordinary course, or have other-

wise some acquaintance with philosophy. The lectures deal in a more advanced way with the chief systems of modern philosophy, special attention being devoted to Spinoza and Kant. Guidance is also given in the study of Advanced Psychology, and some of the Lectures deal with the problems of Advanced Logic.

Lectures on Greek Philosophy are delivered as a part of this Course by Mr Hardie, Assistant to the Professor and Lecturer in Logic and Metaphysics.

The Class meets on Tuesday and Thursday throughout the Session, and during part of the Session at a separate hour for the Lectures on Greek Philosophy.

Summer Session, 1898.

R. P. HARDIE, M.A., *Lecturer.*

Honours Courses in Ancient Philosophy.

Each of the following will constitute a Half-Course qualifying for Honours in Mental Philosophy and in Classics :—

A.—Subject, Plato chiefly, but other subjects will be treated, in accordance with the requirements of the Class.

Books.—Two at least of the following :—Plato, *Republic*, *Theaetetus*, *Philebus;* Ritter and Preller, *Historia Philosophiae Graecae*, Sections 1-173.

B.—Subject, Aristotle.

Books.—Two at least of the following :—Aristotle, *De Anima* and *Nicom. Ethics*, especially Bks. I.-IV. and X.; Trendelenburg, *Elementa Logices Aristoteleæ.*

Tutorial Class in Elementary Logic.

This Course of Fifteen Lectures on Logic is intended to prepare Students for the Ordinary Class of Logic and Metaphysics.

MORAL PHILOSOPHY.

PROFESSOR CALDERWOOD.

Ordinary Class.

Province and Aim of Moral Philosophy.

1. PSYCHOLOGY OF ETHICS.—Knowledge of Moral Distinc-

tions ; form and source of this knowledge ; Rival Theories — Intuitional, Utilitarian, and Evolution Theories. Natural Impulses and Restraints. The Will — its Nature and Laws of Exercise. Moral Sentiments. Disordered Impulsive Force.

2. METAPHYSIC OF ETHICS. — Moral Government of the Universe. The Foundation of Virtue. Relation of Divine Sovereignty to the Will of Moral Agents. Origin of Evil. Immortality of the Soul.

3. APPLIED ETHICS. — Individual, Social, and Political Ethics.

4. THE HISTORY OF MORAL PHILOSOPHY.—The Rise of Philosophy ; Distinction of Moral from Intellectual Philosophy ; Development of Systems of Moral Philosophy in Ancient and Modern Times.

The Course includes oral and written examinations, and essays.

Text-Books.—The Professor's "Handbook of Moral Philosophy ;" Kant's "Groundwork of the Metaphysic of Ethics ;" Sidgwick's "Outlines of the History of Ethics."

Histories.—Schwegler, *History of Philosophy.* Windelband (special reference to Philosophic Problems). Falekenberg, *Modern Philosophy.* For use of terms, *Vocabulary of Philosophy*, Fleming.

Honours Class—3 to 4 on Wednesday and Friday.

The History of Moral Philosophy from the time of Socrates.

Subjects of study.—The Sophists, The Teaching of Socrates as presented in Xenophon's "Memorabilia," and in Plato's "Protagoras" and "Apologia." The Ideal Philosophy of Plato as developed in the "Republic," and in other Dialogues. Aristotle's "Nicom. Ethics." The rise of Modern Philosophy ; the "Method and Meditations" of Des Cartes ; Spinoza's "Ethics," Books III., IV., V. The Scepticism of Hume. The Scottish Philosophy ; Kant's Ethical System ; Fichte's Practical Philosophy ; Hegel's Ethics ; Schopenhauer's Pessimism ; Later developments of Ethical Thought.

Books.—Zeller's "Socrates and the Socratic Schools," Plato's "Republic," Jowett's Translation, Grant's "Ethics of Aristotle,"

Zeller's "Stoics, Epicureans, and Sceptics"; Kant's "Ethics," Hegel's "Philosophy of the State and of History" (Grigg's Philosophical Classics); Green's "Prolegomena to Ethics"; Utilitarianism, as in Mill's "Utilitarianism"; in Spencer's "Data of Ethics" and "Justice"; and in Sidgwick's "Methods of Ethics." Histories. Ueberweg, and Erdmann; Windelband Falkenberg; Burnet's "Early Greek Philosophy"; Benn's "Greek Philosophers."

The Library of the Honours School places these and similar works within reach of members of the Class. Fee, 5s.

Summer Session, 1898.

CHARLES DOUGLAS, M.A., D.Sc., *Lecturer.*

Honours Course in Psychology.

This Class (a half-course qualifying for Honours in Philosophy) will meet at eleven on Mondays, Wednesdays, and Fridays, beginning 4th May.

Attention will be directed mainly to principles and problems of ethical and philosophical interest; results of experimental research will be specially kept in view.

No text-book will be followed, but frequent references will be given to James' "Principles of Psychology," Baldwin's "Hand-book of Psychology," Sully's "Human Mind," Külpe's "Outlines of Psychology," &c.

Honours Course in Ethics.

This Class (a half-course qualifying for Honours in Philosophy) will meet at twelve on Mondays, Wednesdays, and Fridays, beginning 4th May. The course is intended mainly for students who propose to take Honours Classes during the following winter. The subject will be the recent development of English Ethics; and the lectures will discuss chiefly the books set for the Honours Examination: Green's "Prolegomena to Ethics," Sidgwick's "Methods of Ethics," and Spencer's "Data of Ethics."

COMMERCIAL AND POLITICAL ECONOMY AND MERCANTILE LAW.

PROFESSOR NICHOLSON.

The course, embracing two half-courses of 50 lectures each, qualifies for Graduation in Arts. The Lectures will follow the arrangement of John Stuart Mill's *Principles of Political Economy*.

1. METHODS USED IN ECONOMIC SCIENCE.—Analysis of Fundamental Conceptions, Wealth, Capital, &c.

2. PRODUCTION OF WEALTH.—Division of Labour—Accumulation of Capital—Growth of Population.

3. DISTRIBUTION OF WEALTH.—Socialism—Land Tenure—Wages—Profits—Rent—Trade Unions.

4. VALUE.—Money—Inflations and Depressions of Trade—Commercial Crises—Banking—Free Trade—Foreign Exchanges—Stock Exchange.

5. ECONOMIC PROGRESS.—Effects of Progress on Value, and on the relative Distribution of Wealth.

6. PRINCIPLES OF THE LIMITS OF GOVERNMENT INTERFERENCE WITH INDUSTRY.—Direct and Indirect Taxation—Incidence of Taxes—National Debts—Contracts—Joint Stock Companies—Patents—Copyrights.

Although Mill will be used as text-book, references will be constantly given to previous writers, *e.g.* Adam Smith and Ricardo, as well as to more recent writers, *e.g.* Sidgwick, Walker, Jevons, Marshall, Bagehot, &c.

History.—One lecture a week on the Economic History of England. This course is not intended to give the history of the Theory of Political Economy, but to trace the principal facts and institutions in the material and social life of the people from an economic standpoint, *e.g.* Gilds, Feudal System, Land Tenures, Ecclesiastical Influence, Serfdom and the Poor, Forms and Amount of Wealth, Foreign and Internal Trade, &c.

THEORY, ART, AND HISTORY OF EDUCATION.

PROFESSOR S. S. LAURIE.

I. Theory, or Science, of Education.

A.—The End and Materials of Education.

The Possibilities and Limits of Education. The End of Education. The relation of the School to this End. The Educative Process generally, whereby the End is attained.

Materials or Subjects of Instruction conducive to the attainment of the End, and the carrying out of the Process. Definition of subjects of instruction in their school sense. Relative value of subjects for instruction and discipline respectively. Distinction of Real and Formal, Humanistic and Naturalistic subjects.

Material conditions of the life and growth of Mind, i.e., *Physiology and its Educational Lessons.*

B.—Science of Education, *i.e.*

Applied Psychology and Ethics.—1. The Psychology of Intelligence in its educational relations fully treated. Periods of Mental Growth. Methodology or the Principles and Rules of the Art of Instruction which the Science yields.

2. Psychology of the Ethical Nature of Man in its educational relations. The Real of Morality (Instruction and Training); the Formal in Morality (Discipline to Duty).

II. Art of Education or Application of Principles and Rules.

A.—*Intellectual.—Rules of the Art*, i.e. *Method in Intellectual Instruction, Training, and Discipline.*—Analytic exposition of the Rules, showing their derivation from the Science of education. Application of the Rules to teaching of—

(1.) Real-Naturalistic subjects, *e.g.* Object-lessons, Elementary Science, Geography, &c.

(2.) Real-Humanistic subjects, *e.g.* Language, Literature, Economics, History, &c.

(3.) Formal subjects, *e.g.* Arithmetic, Geometry, Grammar, Foreign Languages.

B.—*Ethical.—Rules of the Art*, i.e. *Method in Moral Training and Discipline.*—Motives. The Authority of the Teacher. The meaning of Authority. The nature and conditions of its exercise. Punishments, Rewards, and school discipline generally.

Organisation of a School. Organisation of a State-system. Ideas governing Primary, Secondary, and University Instruction respectively. The Manual and the Technical in Instruction. School appliances. Manipulation of a Class. The Teacher.

D.—History of Education and of Theories.[1]

Pre-Christian Education — 1. Education in Ancient Egypt. 2. Education among the Semitic Races. 3. Education of the Hindu Races. 4. The Education of the Ancient Persians. 5. Education among the Hellenic Races. The educational views of Plato and Aristotle. 6. Education among the Romans. 7. Detailed analysis and exposition of the Institutions of Quintilian. 8. Plutarch.

Christian Education—1. The decay of the Romano-Hellenic, and the rise of Christian, Education. 2. The Cathedral and Monastery Schools. 3. The Rise of Universities.

The Renaissance—1. Humanism as represented by Rabelais and Montaigne, Erasmus, Colet, Luther, Melancthon, John Sturm, Roger Ascham. Exposition of "The Scholemaster."

The Modern Movement — 1. Lord Bacon. 2. Ratichius. 3. Comenius. 4. Milton. 5. Analysis and exposition of John Locke's "Thoughts on Education," and the "Conduct of the Human Understanding." 6. Rousseau, Basedow, and Campe 7. Pestalozzi, Jacotot, Fröbel, Jean Paul Richter, Diesterweg, Dr Arnold. 8. Dr Andrew Bell and Joseph Lancaster. Herbert Spencer and contemporary Realism.

Note.—The books to be thoroughly studied during the Session, apart from the Lectures, are *Comenius' Didactic*, and the Professor's book on "Language and Linguistic Method." The "Institutes of Education" must also be in the hands of the

[1] In 1897-98 the Lectures will be confined to the Modern Movement.

student. *Four written Examinations will be held during the Session, and Three Essays on educational principles or method called for.*

PRACTICE IN TEACHING.—Arrangements are made at the Training Colleges for securing training in the *Practice of Teaching* to the extent of the requirements of the University Schoolmaster's Diploma now recognised by the Education Department. Fee for this, £1, 10s. 6d. Facilities are also given for visiting one or two of the principal schools, and acquiring a knowledge of their organization.

PHILOSOPHY OF LAW.

PROFESSOR SIR LUDOVIC GRANT, BART.

This course of forty lectures, commencing on Tuesday, 18th October 1897, at 2, will qualify as a half-course for graduation. The Class will meet five days a week.

Scope of the Science defined. The State, its Functions and Legal Institutions, Marriage, Family, Property, Succession, Contract, Punishment, &c., examined. The Province of Jurisprudence determined. Examination of the Sources of Positive Law. Classification of Rights.

Books of reference.—Ritchie, Natural Rights; Green, Principles of Political Obligation; Lorimer, Institutes of Law; Ahrens, Cour de Droit Naturel; Lerminier, Philosophie de Droit; Bluntschli, The Theory of the State; The Student's Austin; Holland, Jurisprudence. Sir Henry Maine's Works.

GIFFORD LECTURES ON NATURAL THEOLOGY.

Lecturer—PROFESSOR C. P. TIELE, OF LEYDEN.

These Lectures were endowed by the late Adam Gifford, Senator of the College of Justice, "for promoting, advancing, teaching, and diffusing the study of Natural Theology in the widest sense of that term." . . . "The lecturers appointed shall be subjected to no test of any kind, and shall not be required to take any oath, or to emit or subscribe any declaration of belief, or to make any promise of any kind; they may be of any denomination whatever, or of no denomination

at all; they may be of any religion or way of thinking, or, as is sometimes said, they may be of no religion; or they may be so-called sceptics or agnostics or free-thinkers;—provided only that the 'patrons' will use diligence to secure that they be able reverent men, true thinkers, sincere lovers of and earnest inquirers after truth. I wish the lecturers to treat their subjects as a strictly natural science, the greatest of all possible sciences, indeed, in one sense, the only science,—that of Infinite Being, without reference to or reliance upon any supposed special exceptional or so-called miraculous revelation. The lecturers shall be under no restraint whatever in their treatment of their theme. The lectures shall be public and popular, that is, open not only to students of the Universities, but to the whole community, without matriculation."

The arrangements for 1897-98 *will be announced before the opening of the Session.*

III.—DEPARTMENT OF SCIENCE.

MATHEMATICS.

PROFESSOR CHRYSTAL.

Junior Class—Taught by the Assistant, under supervision of the Professor. 12 to 1.

Plane Geometry equivalent to Euclid, Books i., ii., iii., iv., and vi. (*Syllabus of Plane Geometry*, prepared by the Association for the Improvement of Geometrical Teaching forms the text of the lectures); Solid Geometry, equivalent to Euclid, Book xi.; Modern Geometry; and Elementary Algebra.

Senior Class—9 to 10.

This is the qualifying class for the Ordinary Degree of M.A. and for the First Science Examination.[1] [2]

Algebra, including the elements of the Theory of Equations, and of Determinants, the Theory of Limits and the Elements of Curve Tracing; Plane Trigonometry; Conic Sections, treated geometrically and analytically; Modern Geometry.

[1] See footnotes 7 and 8, page 56.

Intermediate Honours Class—Monday, Wednesday, Friday, 11 to 12.

This course will suit Engineers and other Science Students who do not wish to make a specialty of Pure Mathematics.

Elementary parts of the Differential and Integral Calculus, and of the Calculus of Finite Differences. Analytical Geometry, Plane, and Elementary Solid. It is assumed that the Student has a knowledge of the Theory of Equations, and of the elements of the Theory of Determinants before he joins this Class.

Advanced Honours Class—Monday, Wednesday, Friday, 10 to 11.

The subjects of this are the higher parts of the Differential and Integral Calculus ; Differential Equations ; Definite Integrals with special reference to Fourier's Theorem ; Functions of Laplace and Bessel ; Higher Plane Curves ; Analytical Geometry of Three Dimensions.

Additional lectures on Quaternions, Projective Geometry, and other special subjects are given occasionally.

Tutorial Classes.—Occasional lectures are also given by the Class Assistant. The time is devoted to the repetition of parts of the class lectures and to the working of examples.

Home Exercises are prescribed weekly in all the classes.

Written Examinations are held during the Session. The class honours are determined solely by these examinations.

Text-Books.—As a rule *special* text-books are not prescribed ; but the student is recommended to select from the following :—

Geometry.—Wilson's Elementary Geometry, or the Text-Books of the Society for the Improvement of Geometrical Teaching, and one or more of the following, for the sake of the exercises they contain : — Mackay's, Todhunter's, Nixons', or Casey's edition of Euclid's Elements, and Casey's Sequel to Euclid.[1]

Algebra.—Chrystal, or Todhunter, Gross, Chambers's Mathematical Tables.

[1] Recommended to those only who make Mathematics a specialty.

Solid Geometry and Conic Sections.—Taylor (smaller work) or Taylor[1] (larger work).

Trigonometry.—Todhunter, Walmsley, or Lock (M'Lelland and Preston[1] for Spherical Trigonometry).

Analytical Geometry.—Smith's Analytical Conic Sections; and Dyer's Exercises in Analytical Geometry. Students intending to take the Third Class are recommended to get Salmon's Conic Sections, Salmon's Higher Plane Curves,[1] and Salmon's Geometry of Three Dimensions,[1] or, instead of the last, Smith's Solid Geometry.

Projective Geometry.—Cremona's Elements of Projective Geometry translated by Leudesdorf, or Henrici's Article on *Geometry*, "Encyclopædia Britannica" (9th edition).

Higher Algebra and Theory of Equations, etc.—Burnside and Panton's, or Todhunter's Theory of Equations; Thomson's Introduction to Determinants, and Muir[1] or Scott[1]; and Salmon's Higher Algebra for those who mean to read for Mathematical Honours.

Differential and Integral Calculus.—Williamson's Treatises, Forsyth's Differential Equations,[1] Frost's Curve Tracing, Boole's Finite Differences.[1]

Summer Session, 1898.

CHARLES TWEEDIE, M.A., B.Sc., *Lecturer.*

1. *Lower Senior*—11 to 12.

This Class qualifies for Graduation in Arts and Science as a First Half-Course[2,3] in Mathematics. The work consists of Algebra and Plane Trigonometry, corresponding to the First Half of the Winter Graduation Course.

2. *Higher Senior*—12 to 1.

This Class qualifies for Graduation as a Second Half-Course[2,3] if taken *after any* First Half-Course in Mathematics. Suitable

[1] Recommended to those only who make Mathematics a specialty.

[2] The first half of the Winter Graduation Course up to Christmas qualifies as a First Half-Course in Mathematics, and the second half of the Winter Course from Christmas to the end of the Session as a Second Half-Course. *Any* First Half-Course, along with *any* Second Half-Course, taken subsequently, qualifies as a full Course of Instruction for Graduation.

[3] See footnote 7, page 56.

also for Students reading for the more advanced part of the Winter Graduation Course. The work consists of Algebra and the elementary treatment of the Conic Sections, Geometrical and Analytical.

In each Class weekly exercises are prescribed, and two written examinations are held.

3. *Advanced Class*—10 to 11.

This Class qualifies as a First Half-Course for Graduation in Arts and Science, with Honours in Mathematics and Natural Philosophy, and will also, so far as is expedient, be adapted for Engineering Students.

The course will aim at a working acquaintance with the more elementary parts of Determinants and the Theory of Equations (not treated in the Winter Advanced Courses), Differential and Integral Calculus, Finite Differences, and Analytical Geometry.

Tutorial Classes.

The above Classes also serve for Tutorial Classes.

Weekly exercises are prescribed on the work of each class.

For text-books, see page 84.

NATURAL PHILOSOPHY.

PROFESSOR TAIT.

Ordinary Class.—(Qualifying for M.A. and First Science Examination.)[1]

The subjects embraced in this Course are :—

1. Properties of Matter—including Inertia, Gravitation, Molecular Forces, &c.

2. Abstract Dynamics—including Kinematics, Statics and Kinetics of Solid, Liquid, and Gaseous Bodies, with their applications.

3. Sound, and Wave-propagation in general.

4. Heat (including Thermo-Dynamics).

5. Light (Geometrical and Physical Optics, and Radiation generally).

6. Electricity.

[1] See footnote 7, page 56.

7. Conservation of Energy.
8. Astronomy (Descriptive and Physical).
9. Meteorology.

Properties of Matter, Abstract Dynamics, and Conservation of Energy, together with two or three others of the above divisions of the subject, are treated in detail every Session, the remainder being discussed in a more superficial manner, as it is impossible to enter at length into all in a single Session.

It is intended that in 1897-98, besides Sections 1, 2, and 7, Sections 4 and 5 shall form the more detailed part of the Course.

The Class is examined at intervals upon the subjects treated in the Lectures ; and a prize is given for the best answering. In these examinations, which form an essential part of the class-work, no Mathematics are requisite, except the most elementary portions of Arithmetic, Algebra, and Geometry.

In January and March there are special Examinations on prescribed subjects, applying mainly to students competing for Class Prizes ; and, on these two occasions only, the Class is divided into two parts—the division depending mainly upon the students' proficiency in Mathematics. In the Lower Division, the elements of Algebra and Geometry alone are required ; in the Higher Division, Algebra, Geometry, and the Geometry of the Conic Sections are necessary. The Prizes in each Division are determined by adding the marks obtained in the two sets of Examinations above described. No student who has obtained a Prize in either Division can compete, in a subsequent Session, for a Prize in the same or in a lower Division.

The Text-Book for the Dynamical part of the Course will be Thomson and Tait's "Elements of Natural Philosophy" (Pitt Press, Cambridge). Of this, however, only the more elementary portions will be required for the Lower Division. For the remainder of the subject the student may consult some of the following books : — Clerk-Maxwell's "Matter and Motion," Jenkin's "Electricity," Balfour Stewart's "Lessons in Physics," Tait's "Properties of Matter," "Heat," and "Light."

The special Examinations in January 1898 will be on :—

Higher Division.—Newton's "Three Sections" (Goodwin's

"Course of Mathematics," Frost's "Newton," or any good edition of the *Principia*).

Lower Division.—Herschel's "Astronomy," the smaller work, in a recent edition, omitting the chapter on Perturbations. A series of explanatory lectures will be given by the Class-Assistant before this Examination.

The subjects for the March Examinations in both Divisions will be Kinematics and Dynamics. The range will depend upon the progress which the Class has made in these subjects.

Honours Classes.—(For Engineering and Science Students, and Arts Students wishing to graduate with Honours in Mathematics.)

Programme of Advanced Science Class, see Courses in Science.

The Intermediate Course of Fifty Lectures, by the Lecturer on Applied Mathematics, will include the more elementary parts of Dynamics of Particles, Rigid Solids, and Flexible Strings; the Theory of the Potential; and Conduction of Heat.

In the Advanced Course (given by the Professor) the subjects begun in the Intermediate Course will be further developed: and Thermodynamics, with one or more special branches of Applied Mathematics [such as the Kinetic Theory of Gases, the Lunar Theory, the Undulatory Theory, Vortex Motion, &c.] will be fully treated. It is most important to observe that no one can possibly profit by attendance at this class, unless he has fully mastered the subjects treated in the Intermediate Class.

One of the text-books in each Course is *Dynamics*, a reprint of "*Mechanics*," in the last edition of the "Encyc. Brit."

Summer Class of Physics, specially for Medical Students.

For particulars, see Courses in Faculty of Medicine.

PHYSICAL LABORATORY.

This has been established with the view of affording students a practical knowledge of the construction and use of physical apparatus, and the mode of conducting experimental inquiries. The Laboratory is open five or six hours daily in the Winter and Summer Sessions, under superintendence of the Professor and

his Class-Assistant. Fee, £6, 6s. for the Winter Session. It is hoped that, with the aid of the valuable collection in the Museum, results of real use to science may be obtained.

A practical class, for instruction in the elementary processes of measuring Time, Mass, Length, Angle, Force, &c., will be formed in Winter and also in Summer. Each Course will extend to about three months. Fee, £2, 2s.

ELEMENTARY DYNAMICS.

C. G. KNOTT, D.Sc., *Lecturer.*

This Half-Course, to be given in the Summer Session 1898, is primarily intended to prepare students for the Intermediate Honours Class in Natural Philosophy and the Advanced Science Class in Dynamics (Engineering). To facilitate the work of these Winter Classes, all Honours and Science Candidates are strongly recommended to take this Course, in which only Mathematics of the standard of the Higher Preliminary will be used. The Course will include Kinematics and Kinetics of a Particle, Impact, Simple cases of Kinetics of a Solid, Equilibrium, Statics, Hydrostatics.

Although the work will reach a somewhat higher standard than is necessary for the Dynamical part of the M.A. Pass and 1st B.Sc. Examination in Natural Philosophy, the Class will be serviceable to Students preparing for this Examination. The Course will also be useful to men preparing for the Civil Service Examinations.

Text-Books recommended.—MacGregor's *Dynamics;* Pinkerton's *Hydrostatics and Pneumatics;* Minchin's *Statics* (Vol. I.).

Summer Session, 1898.

ADVANCED EXPERIMENTAL PHYSICS.

W. PEDDIE, D.Sc., *Lecturer.*

In this Class certain subjects, which may be treated mathematically in the Winter Advanced Honours Course of Natural Philosophy, will be treated fully from the experimental point of view. The Course is also intended for undergraduates in Experimental Science. It is proposed to treat experimentally the

advanced parts of Light, Electricity, Magnetism, &c. In connection with the Undulatory Theory, the following subjects will be discussed:—Reflection, refraction, and interference of ordinary and of polarised light; conical refraction; diffraction; electro- and magneto-optics; and the optical phenomena of crystalline substances. In Electricity and Magnetism such subjects as the discharge of electricity through gases; the screening effect of conducting sheets, and other phenomena associated with rapidly alternating electromotive forces; electromagnetic undulations; magnetic hysteresis, &c., will be treated. The experimental investigation of reciprocally related physical phenomena will be specially illustrated from various branches of physics; and, on the dynamical side, special attention will be devoted to the realisation of dynamical systems illustrative of physical phenomena.

Tutorial Class.

NATURAL PHILOSOPHY (*Advanced Honours*).

The work will correspond as closely as possible to that of the Winter Advanced Honours Course. The Class is intended for Students preparing for the above Winter Course, or for the Advanced Honours Examination.

ASTRONOMY.

PROFESSOR COPELAND.

(*Eighty Lectures, and, on different days, Twenty Meetings of two hours each for Observatory work.*)

Lectures on Practical Astronomy will be delivered on Mondays, Tuesdays, Wednesdays, and Thursdays. Instruction in the use of portable and fixed astronomical instruments will be given at the Royal Observatory on Blackford Hill, on Fridays, beginning at 8 P.M. Attendance at the evening demonstrations is obligatory on all who take Astronomy as a qualifying course for graduation. The Lectures will be divided into two courses, the first of which will embrace the theory and use of Astronomical Instruments, together with as much General Astronomy as is requisite to guide the student in making observations in the field

as well as in an observatory. The Second Course will treat of the utilization of observations of Comets, etc., in the computation of orbits and ephemerides.

CHEMISTRY.

PROFESSOR CRUM BROWN.

This Course, the same as for Students of Medicine and Science, embraces One Hundred Lectures and Fifty Meetings for Practical Work in the Practical Chemistry Class-Room.

ZOOLOGY.

PROFESSOR EWART.

This Course, the same as for Students of Medicine and Science, embraces Fifty Lectures and Fifty hours for Practical Work.

BOTANY.

PROFESSOR BAYLEY BALFOUR.

This Course, the same as for Students of Medicine and Science, embraces Fifty Lectures and Fifty hours for Practical Work.

GEOLOGY, INCLUDING MINERALOGY.

PROFESSOR GEIKIE.

For Synopsis of this Course, see under Pure Science.

IV.—DEPARTMENT OF HISTORY AND LAW.

HISTORY.

PROFESSOR PROTHERO.

The Course qualifies for Graduation in Arts. The subject, until further notice, is GENERAL BRITISH HISTORY, divided into the following Periods and Subjects, of which a fuller syllabus will be issued by the Professor after the commencement of the Session :—

Part I.—1. Celtic and Roman Britain (to A.D. 400).—2. The English and Scottish Conquests (400-613). — 3. The Early Church.—4. The English and Scottish Kingdoms (613-855).—5. The Danish Conquests (855-1042).—6. The Norman Con-

quest (1042-1087).—7. The making of Scotland (685-1057).—8. The Norman Monarchy (1066-1154).—9. The Angevin Monarchy (1154-1199).—10. Celt and Teuton in Scotland (1057-1174).—11. Norse and English Conquests in Wales and Ireland (795-1175).—12. The Charters (1199-1217).—13. The growth of Parliament (1217-1272).—14. England, Wales, and Scotland (1175-1328).—15. The Great War with France, part i. (1327-1377).—16. The Lancastrian Revolution (1377-1413).—17. Independent Scotland (1328-1424).—18. The Great War with France, part ii. (1413-1453).—19. The Yorkist Revolution (1450-1485).—20. King and Nobles in Scotland (1424-1488); Ireland (1175-1494).

Part II.—21. The Tudor Monarchy (1485-1603).—22. The Reformation in England and Scotland (1529-1603).—23. England, Scotland, and Europe (1485-1603).—24. Crown and Parliament (1603-1640).—25. The Long Parliament and the Protectorate (1640-1660).—26. Restoration and Revolution (1660-1692).—27. Colonies and Commerce (1600-1688).—28. Whigs and Tories: William III. and Marlborough (1689-1715).—29. Scotland and Ireland: the Union (1689-1715).—30. The Whig Supremacy (1715-1760).—31. India and America (1715-1763).—32. George III. and the Parliament (1760-1784).—33. The American War (1763-1783).—34. Pitt and the French Revolution (1784-1815).—35. Ireland: the Union (1715-1800).—36. India (1763-1815).—37. Reaction and Reform (1815-1832).—38. The Reformed Parliament (1832-1866).—39. Foreign Policy and India (1815-1858).—40. The growth of Democracy (1866-1885).

N.B.—During the Session 1897-98 the Lectures will deal mainly with Part I. of the above Syllabus, Part II. being treated only in outline.

WORK OF THE CLASS.—1. Lecture daily, except Saturdays, at twelve. One hour a week, if possible, will be devoted to the discussion of special points, notes on original authorities, &c.

2. Four Class Examinations will be held, and two or more Essays set, during the Session. Honours are awarded to candidates distinguished both in the examinations and in the essays.

3. The History Reading-Room adjoining Professor Kirkpatrick's Class-Room may be consulted by members of the History Classes on Mondays and Fridays from 11 to 1, and on Wednesdays from 12 to 2.

Books recommended.—For elementary purposes, S. R. Gardiner's "Student's History of England," J. R. Green's "Short History of the English People," J. F. Bright's "History of England," or Ransome's "Advanced History of England," with Macarthur's "History of Scotland," and Morris' "History of Ireland" (Cambridge Series). For wider study, see the lists given in the "Introduction to English History" by Gardiner and Mullinger, Part II.

Honours Classes.

PROFESSOR PROTHERO.

The subject for the Session 1897-1898 is

GREAT BRITAIN AND EUROPE, 1815-1878.

I. The Tory Reaction and the Holy Alliance. II. Canning and Metternich. III. The Revolution of July. IV. Palmerston and Louis Philippe. V. The Revolution of 1848. VI. The Second Empire and the Crimean War. VII. The Italian Kingdom and the German Empire. VIII. The Eastern Question.

A fuller syllabus will be issued by the Professor at the commencement of the session.

Books recommended.—Lodge, "Modern Europe" (Murray's Student Series, Vol. i.; Fyffe, "Modern Europe," Vols. ii., iii.; Bright, "History of England," Vol. iv. 1837-1880: Lavallée, "Histoire des Français," Vols. v. vi.; Maurice, "Revolution of 1848-1849:" Lives of Bismarck (Lowe), Cavour (Mazade), &c. Other authorities will be mentioned in the fuller syllabus. The Revolution of 1848 will be studied in detail; special authorities—Lamartine, "Histoire de la Revolution de 1848:" Louis Blanc, "Histoire de la Revolution de 1848."

This Course of Fifty Lectures qualifies for graduation in Arts with Honours in History. The Lectures will be given on Mondays, Wednesdays, and Fridays at 10.

Two class examinations will be held, and two or more essays set, during the session. Students in this class may attend Mr

Heatley's advanced course on "The English Kingship" (Wednesdays at 11, without fee, and may use the History Reading-Room.

The Honours Subject for the session 1898-99 will be "England, Scotland, and France at the close of the Middle Ages, 1415-1485."

Books recommended for preliminary study—Lodge's "Modern Europe"; Ramsay, "Lancaster and York," Vol. ii.; Lavallée, "Histoire des Français," Vol. ii.

State and Church in England: A Political Survey: 1384-1563.

Honours Course—Fifty Lectures.

PROFESSOR KIRKPATRICK.

I. Introductory—Precursors of Wycliffe. Wycliffe's place in political History—Lollardy. II. Survival of Wycliffite doctrines—Constitutionalism in the Church—The Bohemian Revival—Hus, Jerome, Payne. III. Political condition of England after Wycliffe's death—The Empire and the Papacy—The Reformation—Its causes, its political and other aspects, especially in England. IV. Original sources.

Books recommended.—Lorimer's translation of Dr Lechler's Wycliffe; "Chronicon Angliae," ed. by E. M. Thomson, 1874; Works of Langland and Chaucer; Walsingham's "Historia Anglicana," ed. by Riley (Rolls Series); Loserth's "Wycliffe and Huss"; James Baker's "A Forgotten Great Englishman (Relig. Tract Soc.); Wycliffe's "Trialogus," "De Officio Regis," and De Civili "Dominio"; Creighton's "Papacy during the Reformation (vols. i. and ii); Pecock's "Repressor" (Rolls Series); Roger's "Gascoigne": Fortescue's "Governance of England," and "de Laudibus Legum": Stubbs's "Lectures on Mediæval and Modern History": Seebohm's "Oxford Reformers"; Brewer's "Henry VIII.," ed. by J. Gairdner.

These Lectures, qualifying as a full course for graduation in Arts with Honours in History, or with Honours in English, or as a half-course for graduation in Law, will be given on Mondays, Tuesdays, and Thursdays, at 4 P.M., beginning on Tues-

day, 12th October 1897 (after Christmas: Tuesdays and Thursdays only). Students attending them may use the History Reading Room, superintended by Mr Heatley, the Professor's Assistant, on Mondays and Fridays from 11 to 1, and on Wednesdays from 12 to 2. They may also attend Mr Heatley's advanced course on "The English Kingship," on Wednesdays, at 11, without additional fee.

CLASSICAL ARCHÆOLOGY AND HISTORY OF ANCIENT ART.

PROFESSOR BALDWIN BROWN.

This Course qualifies as an alternative subject for Honours in History. For details see page 67.

FINE ART.

PROFESSOR BALDWIN BROWN.

This Course of one hundred Lectures, qualifying for the M.A. degree, is designed—

1. To bring before students, by critical descriptions and illustrations, the chief ancient and modern works of Architecture, Sculpture, Painting, and the Decorative or Industrial Arts.

2. To show how these works are connected in origin and use with the national and social life of successive epochs; and, conversely, how Artistic Monuments illustrate Classical and Biblical literature, and bear on historical investigation in general.

3. To explain as far as practicable the technicalities of the various Arts, and to open up those aspects of Art which present themselves naturally to the artist, but are sometimes overlooked by the literary student.

On the historical side—

The characteristics of different styles and schools of Art will be broadly indicated, but this part of the subject, which can be studied from books, will not be dwelt upon at length.

On the artistic side—

Particular stress is laid on the explanation of different materials and technical processes, as upon these largely depend

the particular forms in which beauty is realised in the various works of human hands.

Arrangements for the work of the Class :—There are Lectures daily at 3 P.M. Three Class examinations are held, and a series of eight Essays are set for the Cousin Prize (£15). The Essays are included in the work required from those taking the Course for Graduation.

The Class Library, Reading Room, and collections of examples are open to members of the Class.

Museums, &c., are visited from time to time on Saturdays.

The Professor's manual, "The Fine Arts," is used, so far as it goes, as a text-book. Other books to be read by those taking the Course for Graduation are indicated on pages 67 and 68.

CONSTITUTIONAL LAW AND HISTORY.

PROFESSOR KIRKPATRICK.

This Course is divided into two half-courses, the first treating mainly of the Constitutional History of England, the second treating of that of the United States of America, that of France, Germany, Switzerland, etc. (see under Faculty of Law).

ECCLESIASTICAL HISTORY.

PROFESSOR TAYLOR.

(See under Faculty of Divinity.)

ROMAN LAW.

PROFESSOR MACKINTOSH.

The Course qualifying for Graduation in Arts will extend next Winter Session to about ninety meetings of the Class. It will be divided into two distinct parts. The first part extending up to the Christmas vacation, includes a sketch of the Constitutional and Legal History of Early Rome ; a survey of the primitive law in its various branches ; and a discussion of the Sources of the law, the rise and progress of Jurisprudence, Codification, and other topics belonging to the external history and the general part of the civil law. It is intended to serve as a historical introduction to the study of the special departments.

The historical lectures qualify as a Half-Course for Graduation in Arts.

The second half of the Course will be devoted to a systematic exposition, in detail, of the law relating to persons and the family, and to property and real rights. In general the order of Justinian's Institutes is followed.

The Lectures on Succession and Contracts are given in the Summer Session. See under Faculty of Law.

Fee for the Half-Course, £2, 2s.; for the full Arts Course, £4, 4s.

Text-Books.—The Institutes of Gaius and of Justinian.

In connection with the historical lectures, students are referred to Muirhead's "Historical Introduction to the Private Law of Rome," Ortolan's "Histoire de la Législation Romaine" (or the English translation), and Maine's "Ancient Law."

PUBLIC INTERNATIONAL LAW.

PROFESSOR SIR LUDOVIC GRANT, BART.

This Course of Forty Lectures commences on 4th January 1898, at 2. The Class will meet *five* days a week. The Course will include—

1. An historical retrospect.

2. Some account of the science and literature of Public International Law.

3. An examination of the sources, and a critical exposition of the leading doctrines, of Public International Law.

Students are recommended to consult Wheaton's History of the Law of Nations, Introduction; Nys's Les Origines du Droit International: Phillimore's International Law; Lawrence's Essays on Modern International Law; Hall's International Law; Westlake's International Law; Pitt Cobbett's Select Cases: Lawrence's Principles of International Law; Walker's International Law. *Vide* under Faculty of Law.

Graduation in Arts.[1]

Candidates who commenced attendance on qualifying Classes before 1st October 1892 are referred to the CALENDAR *for 1895-96, or previous* CALENDARS.

The Degree admits to professional Study, to the Army, &c. It also qualifies for Mastherships of Public Schools, subject to an examination in the methods of instruction, and three months' attendance in a Public School for the practice of teaching. Those who take the Schoolmaster's Diploma are now exempted from this Examination if Graduates of this University.

ACADEMICAL YEAR.

I. The Academic year commences on the first day of October. The winter session opens about the middle of October, and includes not less than twenty teaching weeks. The summer session opens about the beginning of May, and includes not less than ten teaching weeks.

II. The Curriculum for the degree of Master of Arts (M.A.) extends over not less than three winter sessions, or two winter sessions and three summer sessions.

PRELIMINARY EXAMINATION.[2]

III. (1) Before entering on the Curriculum (subject to the *proviso* contained in Section IV., Sub-section 1) each student must pass a Preliminary Examination in the following subjects :—

1. English.
2. Latin or Greek.
3. Mathematics.
4. One of the following :—Latin or Greek (if not already taken), French, German, Italian, or such other language as the Senatus Academicus may approve,[3] Dynamics.

(2) The examination must be passed in the matters and on the standards hereinafter defined ; but there is a higher and a lower standard in Latin, Greek, and Mathematics.

Candidates must pass on the higher standard in at least one of these three subjects, and may pass on the lower standard in either or both of the remaining two ; subject always to the conditions relative to attendance contained in Section IV. hereof.

(3) English includes Grammar and Composition, and the outlines of Geography and British History, and the standard must not be lower than that presently adopted for the Higher Grade Leaving Certificate of the Scotch Education Department.

(4) Latin and Greek comprise grammatical questions, translation

[1] The annual amount of Matriculation, Class Fees, &c., of the regular course in Arts may be estimated at about £10, 10s.

[2] See also pages 115-119 inclusively, and page 477.

[3] Any Candidate who proposes to be examined in a language other than those above named, is required to apply to the Senatus for approval before 1st February or 1st July for the Spring and Autumn Examinations respectively.

into English from Latin or Greek authors not previously prescribed, and translation of plain passages or easy sentences from English into Latin or Greek. The higher standard must not be lower than that formerly adopted in the examination for a Curriculum of three sessions, or for the Higher Grade Leaving Certificate of the Scotch Education Department, and the lower standard must not be lower than that presently adopted for the Lower Grade Leaving Certificate of the said Department.

(5) French, German, and Italian comprise grammatical, literary, and easy philological questions, translation into English from French, German, or Italian authors not previously prescribed, and translation from English into French, German, or Italian; and the standard must not be lower than that presently adopted for the Higher Grade Leaving Certificate of the Scotch Education Department.

(6) Mathematics on the lower standard comprises—(1) Arithmetic, including Vulgar and Decimal Fractions, Proportion, Percentage, Square Root, Simple Interest; (2) Algebra, including Fractions, Factors, Square Root, Equations of the First Degree, Simultaneous Equations of the First Degree, Easy Quadratic Equations, Problems leading to the above Equations; (3) Geometry—Euclid, Books I., II., and III. (or their equivalents), with easy deductions. Demonstrations other than Euclid's will be accepted if they assume no propositions which in Euclid's order are subsequent to the proposition under consideration.

(7) Mathematics on the higher standard, in addition, comprises Euclid, Books IV., VI., and the first twenty-one propositions of Book XI. (or their equivalents), with deductions, Quadratic Equations, Trigonometry to the solution of Triangles inclusive, and the use of Logarithmic Tables.

(8) Dynamics means the Elementary Statics and Kinetics of Solids, Liquids, and Gases.

(9) A candidate must pass in all the required subjects at one or not more than two examinations, but may offer himself for re-examination as often as may be necessary to satisfy this condition.

IV. (1) Attendance on any class does not qualify for graduation, unless the whole Preliminary Examination has been passed. But any Student who has passed in Latin, Greek, or Mathematics on the higher standard may attend a qualifying class in such subject or subjects without having passed in the other subjects of the examination, provided always that (*a*) no candidate will be allowed to present himself for examination in any subject qualifying for graduation until he has passed the whole Preliminary Examination, and (*b*) no Student will be admitted to a degree in Arts unless he has attended qualifying classes in the University granting the degree, or in another Scottish University, as provided by Section XXV. hereof, for three Academic years after he has completed his Preliminary Examination.

(2) Attendance on a class in any language included in the Prelimin-

ary Examination does not qualify for graduation, unless the candidate, before entering the class, has passed the Preliminary Examination in that subject, and on the higher standard where a double standard is provided. He may, for that purpose, attend any Preliminary Examination held during the course of his study, taking only the paper set in that subject; provided always that the provisions of the subsection immediately preceding have been satisfied.

(3) Attendance on a class in any language not included in the Preliminary Examination will not qualify for graduation, unless the candidate has previously passed an examination in that language on a standard as nearly as possible equivalent to the higher standard of the languages included in the Preliminary Examination.

(4) Attendance on a class of Mathematics or Natural Philosophy will not qualify for graduation unless the candidate, before entering the class—in addition to the examination in Mathematics on the Lower Standard required of all students—has passed an examination in the following subjects:—

(*a*) Euclid: Book VI., Propositions 1-19, or Geometry equivalent thereto.

(*b*) Algebra: Quadratic Equations, Ratio and Proportion.

(*c*) The Trigonometry of Right-angled Triangles.

(5) A student, who, having passed the Arts Preliminary Examination in accordance with these Regulations, has thereafter obtained a certificate of attendance on a qualifying class of Mathematics, will not be required to pass any further examination in Mathematics as a condition of entering on the course of study for graduation in Science.

V. (1) The Preliminary Examination is held at each University twice in each year, and is conducted in writing.

(2) The Joint Board of Examiners has power to accept the Higher Grade Leaving Certificate of the Scotch Education Department in any subject as an equivalent for the Preliminary Examination in that subject; and to accept the Lower Grade Leaving Certificate of the said Department as an equivalent for the Preliminary Examination on the lower standard in Latin, Greek, and Mathematics; provided they are satisfied that the standard of the examination, at which the said certificates were granted, is not lower than that required by these Regulations.

(3) The Joint Board has power to determine what examinations, if any, other than those for the Leaving Certificates of the Scotch Education Department may be accepted as equivalent to the Preliminary Examination in whole or in part, provided they are satisfied that such other Examinations are in fact equivalent thereto.

ORDINARY DEGREE.

VI. Candidates for the ordinary degree of Master of Arts may follow the Curriculum and take their degree in the subjects recognised for graduation under the Universities (Scotland) Act, 1858, subject always

to the preceding provisions of these Regulations; or they may vary the Curriculum for graduation under the regulations contained in the immediately succeeding sections.

VII. (1) Candidates must attend full courses in at least seven subjects, and are examined on these subjects.

(2) Of these subjects four must be (*a*) Latin or Greek (not modern Greek); (*b*) English or a Modern Language (French, German, Italian, or Spanish), or History; (*c*) Logic and Metaphysics, or Moral Philosophy; (*d*) Mathematics or Natural Philosophy.

(3) The remaining subjects may be selected by the candidate from the Departments specified in Section IX. of these Regulations, under the following condition :—That the whole subjects taken must include either (*a*) both Latin and Greek (not modern Greek), or (*b*) both Logic and Moral Philosophy, or (*c*) any two of the following three subjects,—Mathematics, Natural Philosophy, and Chemistry.

VIII. (1) Each of the subjects must be studied in a full course of not less than one hundred meetings of the class on separate days, except in cases where the Senatus, with the approval of the University Court, have sanctioned, as qualifying for graduation, half courses of not less than fifty meetings on separate days; or where the Senatus, with the approval of the said Court, may, having regard to the nature of the subject, sanction full courses of less than one hundred or half courses of less than fifty meetings respectively.

(2) Two half-courses are held to be equivalent to a full course in such cases as the Senatus, with the approval of the University Court, may determine, and under such regulations as may from time to time be made for that purpose.

(3) Where a subject is taught in a practical class, as well as in a systematic class, the Senatus, with the approval of the University Court, regulates the course of study and determines the relative proportion of lectures and laboratory or practical work.

IX. The Departments of Study for graduation in Arts in each University, if adequate instruction is provided, include the following subjects, with such additions or modifications in any University as may hereafter be made by Ordinance of the University Court :—

1. *Language and Literature.*

Latin.	Italian.
Greek.	Spanish.
Modern Greek.	Sanskrit.
English.	Hebrew.
French.	Arabic or Syriac.
German.	Celtic.

2. *Mental Philosophy.*

Logic and Metaphysics.	Education (Theory, History, and Art of).
Moral Philosophy.	Philosophy of Law.
Political Economy.	

3. *Science.*

Mathematics.	Zoology.
Natural Philosophy.	Botany.
Astronomy.	Geology.
Chemistry.	

4. *History and Law.*

History.	Constitutional Law and History.
Archæology and Art (History of).	Roman Law.
	Public Law.

X. Candidates who produce certificates that they have satisfied all the conditions prescribed by these Regulations, and who have passed the necessary examinations, are entitled to receive the ordinary degree of M.A. on payment of the fees required.

DEGREE WITH HONOURS.[1]

XI. (1) The degree of M.A. may be taken with Honours in any of the following Groups, in which Honours Classes have been established in at least two subjects :—

(*a*) Classics (*i.e.* Latin and Greek, with optional subjects such as Comparative Philology, Ancient Philosophy, and Classical Archæology).
(*b*) Mental Philosophy.
(*c*) Mathematics and Natural Philosophy.
(*d*) Semitic Languages.
(*e*) Indian Languages.
(*f*) English (Language, Literature, and British History). English Literature is the chief subject of this group, the linguistic and historical subjects being regarded as subsidiary.
(*g*) Modern Languages and Literature.
(*h*) History.

(2) Every candidate must take up at least five subjects. Two of these subjects, under separate Professors or Lecturers, must be selected from the candidate's Honours Group; and the five subjects must include one from each of the Departments of Language and Literature, Mental Philosophy, and Science, set forth in Section IX. of these Regulations.

(3) Every candidate must attend seven Classes, taking two Classes (one of which must be an Honours Class) in each of his Honours subjects.

[1] *Civil Service Commission Examinations.*—Candidates for Graduation in Arts with Honours are reminded that most of their subjects are admissible also in the Public Examinations held by the Civil Service Commission and other Public Examinations, on the results of which many important posts in India and at home are awarded each year. A Committee of the Senatus has been formed for the purpose of directing the studies of Students who have these examinations in view. Those who desire advice or information on this subject should apply to Professor Hardie, Convener of the above-mentioned Committee; and the Regulations and lists of subjects may be obtained from "The Secretary, Civil Service Commission, London, S.W."

(4) A candidate who has obtained Honours in any one Group may, before graduating, present himself again for examination in a second Honours Group. In such a case, he will not be required to attend more than two additional Classes, which must be Honours Classes, in the second Group.

(5) The examination in the subjects comprised in the candidate's Honours Group must be of a higher standard than that required for the ordinary degree of M.A. In his other subjects the standard will be that required for the ordinary degree.

(6) The Senatus, subject to the provisions of Sections XVI. to XX. of these Regulations, from time to time determines what subjects are comprised in each Group, what subjects may be taken in half-courses, and in which Group they may be taken: Provided that no new Group shall be instituted except by Ordinance of the University Court.

(7) The provisions of Section VIII. of these Regulations applies to Candidates for Honours; but, in their case, not fewer than fifty meetings, on separate days, extending over an entire winter session, will constitute a full course for an Honours Class; and not fewer than twenty-five meetings on separate days, extending over half a winter session, or an entire summer session, will constitute a half course.

XII. (1) Every candidate must include Latin, or Greek, either in his Honours Group or as one of the subjects in which the standard of examination is that required for the ordinary degree of M.A.

(2) Greek is compulsory for candidates for Honours in Mental Philosophy.

(3) Candidates for Honours in English, or Modern Languages and Literature, or History (Groups *f*, *g*, *h* of Section XI. hereof) must include within the whole subjects taken for their degree (*a*) Logic and Metaphysics or Moral Philosophy, and (*b*) Mathematics or Natural Philosophy.

(4) Every candidate must obtain a certificate of attendance on the class of Latin or Greek, under sub-sections (1) or (2) of this section, before he offers himself for examination in his Honours group of subjects.

Candidates for Honours in Mental Philosophy who have included Latin, but not Greek, as one of the subjects in which the standard of examination is the same as that required for the ordinary degree of Master of Arts, will be deemed to have satisfied the provisions of sub-section (2) of this section, if, before they offer themselves for the Honours Examination in Mental Philosophy, they have passed a special examination in translating into English passages from the works of Greek philosophical authors, including passages from the works of such authors not previously prescribed.

XIII. (1) The whole examination in the candidate's Honours Group must be taken at one time, and the whole examination necessary for graduation with Honours must be taken within five years from the date of the candidate's first matriculation after having passed the Preliminary Ex-

amination, unless that period shall be extended by the Senatus on special cause shown; and in every such case the Senatus must make a report to the University Court setting forth the reasons for the extension.

(2) Candidates for Honours may be examined, at any time during their Curriculum, in the three subjects in which the standard of examination is that required for the ordinary degree of M.A.

XIV. (1) A candidate who has passed the examinations necessary for the ordinary degree of M.A., but who has not yet graduated, may present himself for Honours within five years from the date of his first matriculation after having passed the Preliminary Examination, and will not be required to attend further classes:—subject always to the provisions of Section XII. hereof.

(2) No one is allowed to present himself a second time as a candidate for the degree of M.A. with Honours, who, upon examination, has failed to obtain Honours.

(3) A candidate is held to have presented himself who has notified his name for examination in accordance with the University regulations. But it will be in the power of the Senatus to relax this rule on special cause shown; and in every such case the Senatus must make a report to the University Court setting forth the reasons for the relaxation.

XV. (1) In each Group there are three Grades of Honours, to be denominated respectively the First, Second, and Third Class. The names of the candidates entitled to Honours in each class are arranged in alphabetical order.

(2) For the degree of M.A. with Honours a Diploma is given setting forth the subjects in which he has taken Honours.

BOARDS OF STUDIES.

XVI. The Senatus of each University from time to time institutes Boards of Studies corresponding as nearly as may be to the Departments of Study enumerated in Section IX. of these Regulations.

XVII. Each Board of Studies consists of such Members of the Senatus and Lecturers in the University as the Senatus may from time to time select, and the Senatus appoints one of the Members of the Board to be Convener thereof.

XVIII. Before the end of each winter session each Professor and Lecturer in the said Departments of study must submit to the proper Board of Studies for its approval a syllabus of the subjects and books proposed for the work of his class for the next Academical year; and also a syllabus of the subjects and books to be prescribed for the Examinations for the Ordinary Degree of M.A. in the next Academical year, and for the Honours Examinations in the Academical year next but one. As soon as such approval has been given, these syllabuses must be transmitted to the Faculty of Arts for its consideration. The syllabuses, with such observations as the Faculty of Arts may see fit to make thereon, must then be transmitted to the Senatus for its sanction.

XIX. (1) Before the end of each winter session each Board of Studies

must prepare a scheme, defining, for the Academical year next but one following, the classes which are deemed to be Honours Classes, and the subjects and courses of reading for Honours in its Department, and must report the same to the Faculty of Arts for its consideration. The scheme, with such observations as the Faculty of Arts may see fit to make thereon, is then transmitted to the Senatus for its sanction.

(2) Each Board must in like manner make recommendations through the Faculty of Arts to the Senatus in regard to the half-courses which may be sanctioned under these Regulations, and the lectures which may be given on special subjects.

XX. The Principal and the Dean of the Faculty of Arts are *ex-officio* Members of each Board of Studies. The Convener presides, and, in his absence, each meeting appoints its own Chairman, and every Chairman has a deliberative, and, in cases of equality, a casting vote.

GENERAL.

XXI. In the case of a foreign student, whose native language is other than English, the standard required in English in the Preliminary Examination is such as the Joint Board of Examiners deems sufficient. In the case of a student, whose native language is other than European, the Senatus may accept as an alternative to Latin or Greek any other classical language, such as Sanskrit or Arabic, subject always to the provisions of Section IV., Sub-section 3 hereof.

XXII. If a student, before passing the Preliminary Examination, has attended a class qualifying for graduation, the Senatus may, on special cause shown, permit him to count such class as qualifying for graduation, on condition of his passing the full Preliminary Examination within such time thereafter as the Senatus may appoint; and in every such case the Senatus must make a report to the University Court setting forth the reasons for the relaxation.

XXIII. The examination in all the languages in the Curriculum must, as far as possible, be on the same standard in examinations for the same degree, and will in all cases test the candidate's knowledge of the history and literature of the several countries.

XXIV. A candidate for the degree of M.A. is not deemed to have attended a class as part of the Curriculum for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

XXV. A student, who has given attendance at classes recognised as qualifying for graduation during one or more sessions in any one or more of the Scottish Universities, may complete his Curriculum by giving attendance during the remainder of his course in another Scottish University, and may proceed to a degree in the latter University in the same way, in all respects as if the previous part of his Curriculum had been taken therein: Provided always that every such student must produce, to the satisfaction of the Senatus of the latter University, certificates of his having passed the Preliminary Examination, and of

his attendance at the former University or Universities, and must be examined in all the subjects necessary for the degree of M.A. by the Examiners of the University in which he completes his Curriculum, and in which alone he will be allowed to graduate; and that no such student will be admitted to a degree in any University unless he has given attendance in such University during the last winter session of his Curriculum, and one other winter session or two summer sessions.

XXVI. A candidate for the degree of M.A. with Honours, who has failed to be placed in any class, may, provided that in the opinion of the Examiners he has given evidence of sufficient attainments in any subject for the ordinary degree of M.A., receive from them a certificate of having passed in such subject, which will count *pro tanto* as part of the examination required under the regulations for the ordinary degree of M.A.

XXVII. The degree of M.A. is in no case conferred on persons who have not satisfied the conditions hereinbefore set forth, and is not conferred *honoris causa tantum*.

XXVIII. A student who, at the time these Regulations came into operation, had commenced his course of study with a view to graduation in Arts in any of the Scottish Universities under the regulations in force at the time in such University, may complete his course and become a candidate for the degree of M.A., with or without Honours, in conformity with such regulations. And any such student who has passed the examination hitherto required for admission to a Curriculum of three sessions, if he desire to come under these regulations, is exempted from the Preliminary Examination herein required.

XXIX. Students may attend any classes without having passed the Preliminary Examination within the meaning of these Regulations, but such attendance will not qualify for graduation.

XXX. Attendance on classes in the Faculty of Arts in which the teaching is on the standard at present recognised for the classes hitherto known as junior or middle classes, will in no case qualify for graduation. It is competent for the University Court in each University to discontinue the Junior Classes, or Middle Classes, where such exist, in Latin, Greek, and Mathematics, when, in the opinion of the Court, the provision for Secondary Education in schools throughout the country is sufficient to render such classes no longer necessary.

XXXI. Ordinances numbered 12, 14, 18, and 69 of the Commissioners under the Universities (Scotland) Act, 1858, as altered under the provisions of the said Act, are repealed, in so far as they are inconsistent with these Regulations.

Graduation of Women.

I. It is in the power of the University Court to admit women to graduation.

II. The conditions for graduation are the same for women as for men, subject to the following modifications, which have effect until provision is made for the instruction of women in all subjects qualifying for graduation in which provision is made for the instruction of men :—

(1) Section XXV. of Regulations for Degrees in Arts is not applicable to the graduation of women in Arts.

(2) So long as within the Faculty provision is not made for the instruction of women in any subject qualifying for graduation in which provision is made for the instruction of men, it is in the power of the University Court to admit to graduation women who have received the requisite instruction in that subject in any Scottish University, or from any teacher or in any Institution, within the University town, recognised for the purposes of graduation by the University Court : Provided always that every candidate for graduation produces evidence of having satisfied the conditions with respect to the Preliminary Examination, and be examined in all the subjects necessary for graduation by the Examiners of the University.

III. So soon as within the University provision is made for the instruction of women in all subjects qualifying for graduation in which provision is made for the instruction of men, the conditions for the graduation of women shall be the same as the conditions for the graduation of men.

IV. (1) Women who may attend classes in the University must matriculate, paying a fee of the same amount as that exigible for other students. (2) Women, who are candidates for graduation but not matriculated students, and who may attend classes within a University town, under the provisions of Section II. (2) hereof, must, at the commencement of each year of such attendance, enrol their names in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by students of the University.

Additional Regulations by the University Court.[1]

Any Woman who has received the requisite instruction in Chemistry, Botany, and Zoology in any Scottish University, or

[1] Extra Academical Teachers in Edinburgh, whose Lectures qualify Women Students for Graduation in Arts in this University :—

T. W. Drinkwater, Ph.D., Chemistry and Practical Chemistry, 17th December 1894.

J. Arthur Thomson, M.A., Zoology, 17th December 1894.

Robert Turnbull, B.Sc., Botany, 17th June 1895.

in the Edinburgh School of Medicine for Women, Surgeon Square, Edinburgh, or in the Medical College for Women, Chambers Street, Edinburgh, will (subject to the provisions of Ordinance No. 18, General No. 9, Regulations for the Graduation of Women,[1] &c.) be admitted to Examination in these subjects for Graduation in Arts. Women may attend within the University the advanced Courses in Botany and Zoology, and the Advanced Lecture Courses in the Chemistry Department.

Any Woman, not a Matriculated Student of the University, availing herself of the permission to attend the Courses on Chemistry, Botany, or Zoology, at the above-named Schools of Medicine in Edinburgh, with a view to Graduation in Arts, must, at the commencement of each year of such attendance, enrol her name in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

Regulations for Special Study and Research, for Appointment of Research Fellows, &c.

I. It is in the power of the Senatus Academicus, with the approval of the University Court, to make regulations under which graduates of Scottish Universities, or of other Universities recognised by the University Court for the purposes hereof, or other persons who have given satisfactory proof of general education and of fitness to engage in some special study or research, may be admitted to prosecute such study or research in the University.

II. It is the duty of the Senatus Academicus—

(1) To receive and decide upon all applications for admission to prosecute special study or research.

(2) To prepare a list of all persons so admitted (hereinafter referred to as Research Students).

(3) To make regulations for the supervision of their work.

(4) To satisfy themselves from time to time that the Research Students are carrying on their work in the University in a satisfactory manner.

(5) To suspend or exclude from any course any student whose conduct or progress is unsatisfactory.

III. Every applicant for admission must send in to the Senatus Academicus a written application stating any degree or other distinction which he has already obtained, the line of study or research which he wishes to prosecute and the probable period of its duration, together with evidence as to his character, capacity, and general qualifications.

[1] See Ordinance Appendix to Calendar, 1892-93, page 51.

IV. An application for admission is in the first instance referred by the Senatus to the appropriate Faculty, or to a Committee appointed by the Senatus; one member of the Committee shall always be a Professor or Lecturer within whose department the proposed line of study or research falls. No applicant shall be recommended by the Faculty or the Committee who has not satisfied them by examination or otherwise that he is qualified to prosecute the proposed line of study or research, and further—

(*a*) That his proposed line of study or research is a fit and proper one;

(*b*) That he possesses a good general education;

(*c*) That he is of good character;

(*d*) That he proposes to prosecute his studies or research during a period to be approved by the Senatus.

The Faculty or the Committee shall make a report to the Senatus upon each application. It is also their duty, subject to the regulations of the Senatus, to provide for the supervision of the Research Student's work, and to report at least once a year to the Senatus as to his progress and conduct. The Senatus shall then determine whether he shall remain a Research Student.

V. Every Research Student is required to matriculate each year, paying the ordinary fee.

VI. Research Students have access to and the use of the University Laboratories and Museums, under such conditions as to payment and otherwise as the University Court, after consultation with the Senatus, may determine.

VII. The title of Research Fellow may be conferred by the Senatus, with the approval of the University Court, on Research Students who have shown special distinction. Such title shall not of itself confer any right to stipend, but it shall be in the power of the University Court to provide a stipend of such amount and for such period as it may think fit to any Research Fellow under the powers of Section XI., Sub-section 8, of Ordinance 27.

VIII. (1) The Research Fellows shall be appointed as aforesaid after consideration of the report or reports submitted in terms of Section IV. hereof.

(2) The title of Research Fellow may be conferred either at the commencement of the Research Student's course of study or research, or at any time during its progress, as the Senatus may determine.

(3) Research Fellows shall retain their title and stipend, if any, for the period during which they are engaged in special study or research in the University, and no longer.

(4) Research Students who have been appointed Research Fellows shall continue to be subject to the conditions above prescribed as to the supervision of their work and the reports to be made thereon.

IX. Nothing herein contained shall prejudice the right of Research Students to such Fellowships, Scholarships, or Prizes as may be open to them by Ordinance or Deed of Foundation.

X. The University Court may, subject to the provisions of Section XI., Sub-section 8, of Ordinance 27, provide such sums as it may think fit in aid of the expenses of Special Study or Research.

Regulations for Higher Degrees in Arts and Science. Degree of D.Sc.

I. Graduates who have taken the degree of Master of Arts in any Scottish University with first or second class honours in Mathematics and Natural Philosophy under the conditions prescribed by the Regulations for Degrees in Arts, or under the Regulations previously in force in such University, may offer themselves for the degree of Doctor of Science (D.Sc.) in the same University after the expiry of five years from the date of their graduation in Arts, under the same conditions as if they held the degree of Bachelor of Science.

II. Research Students within the meaning of the Regulations for the Encouragement of Special Study and Research, and for the appointment of Research Fellows may offer themselves for the degree of D.Sc. of the University in which they have prosecuted some special study or research under those Regulations, although they have not taken the degree of B.Sc. or the degree of M.A. with honours as aforesaid in that University; provided—

(1) That they hold the degree of B.Sc. or M.B. of a Scottish or any recognised University, or a degree of any such University, which the Senatus shall hold to be equivalent to the degree of B.Sc. or to the degree of M.A. with first or second class honours in Mathematics and Natural Philosophy; provided that candidates who hold any such degree from a University outside the United Kingdom may be required, if the Senatus think fit, before beginning their course as Research Students with a view to the degree of D.Sc., to pass an examination equivalent to an Honours or to a Final Science examination in a group of subjects cognate to their line of work as Research Students.

(2) That they have spent not less than two winter sessions or an equivalent period as Research Students in the University granting the degree, and that they produce evidence of satisfactory progress in the special study or research undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

III. All candidates for the degree of D.Sc. shall present a thesis or a published memoir or work,[1] to be approved by the Senatus on the recommendation of the Faculty of Science; provided that, if required by the Senatus, the candidate shall also be bound to pass such

[1] The Thesis must be lodged and the fees paid before 20th January of the year in which the candidate proposes to graduate.

an examination conducted orally or practically, or by written papers, or by all of these methods, on the subjects of his special study or of his thesis, as may from time to time be determined. The thesis shall be a record of original research undertaken by the candidate, and shall be accompanied by a declaration signed by him that the work has been done and the thesis composed by himself.

Degree of D.Phil.

IV. Graduates who have taken the degree of M.A. in any Scottish University with first or second class honours in Mental Philosophy, under the conditions prescribed by Ordinance No. 11 [General No. 6—Regulations for Degrees in Arts], or under the Regulations previously in force in such University, may offer themselves for the degree of Doctor of Philosophy (D.Phil.) in the same University after the expiry of five years from the date of such graduation.

V. Research Students as aforesaid may offer themselves for the degree of D.Phil. of the University in which they have prosecuted some special study under Ordinance No. 61 [General, No. 23—Regulations for the Encouragement of Special Study and Research, and for the appointment of Research Fellows], although they have not taken the degree of M.A. with honours as aforesaid in that University; provided—

(1) That they hold the degree of M.A. with first or second class honours in Mental Philosophy of any Scottish University, or a degree of any recognised University, which the Senatus shall hold to be equivalent to such degree with honours as aforesaid; provided that candidates who hold such a degree from a University outside the United Kingdom may be required, if the Senatus think fit, before beginning their course as Research Students, with a view to the degree of D.Phil., to pass an examination equivalent to an honours examination in a group of subjects cognate to their line of work as Research Students.

(2) That they have spent no less than two winter sessions or an equivalent period as Research Students in the University granting the degree, and produce evidence of satisfactory progress in the special study undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

VI. All candidates for the degree of D.Phil. shall present a thesis or a published memoir or work,[1] which shall be an original contribution to learning, to be approved by the Senatus on the recommendation of a Committee appointed by the Senatus; provided that, if required by the Senatus, a candidate shall also be bound to pass such examination, conducted orally or otherwise, on the subject of his thesis or of his special study as may from time to time be determined. The thesis, or

[1] See footnote 1, p. 111.

memoir, or work shall be accompanied by a declaration signed by the candidate that it has been composed by himself. If the thesis has not already been published, it shall be published by the candidate in such manner as the Senatus shall approve.

Degree of D.Litt.

VII. Graduates who have taken the degree of M.A. in any Scottish University with first or second class honours in any group other than Mathematics and Natural Philosophy or Mental Philosophy, under the conditions prescribed by Ordinance No. 11 [General No. 6—Regulations for Degrees in Arts], or under the Regulations previously in force in such University, may offer themselves for the degree of Doctor of Letters (D.Litt.) in the same University after the expiry of five years from the date of such graduation.

VIII. Research Students as aforesaid may offer themselves for the degree of D.Litt. of the University in which they have prosecuted some special study under Ordinance No. 61 [General No. 23—Regulations for the Encouragement of Special Study and Research, and for the appointment of Research Fellows], although they have not taken the degree of M.A. with honours as aforesaid in that University; provided—

(1) That they hold the degree of M.A. with first or second class honours in any group except Mathematics and Natural Philosophy or Mental Philosophy of any Scottish University, or a degree of any recognised University, which the Senatus shall hold to be equivalent to such degree with honours as aforesaid; provided that candidates who hold such a degree from a University outside the United Kingdom may be required, if the Senatus think fit, before beginning their course as Research Students with a view to the degree of D.Litt., to pass an examination equivalent to an honours examination in a group of subjects cognate to their line of work as Research Students.

(2) That they have spent not less than two winter sessions or an equivalent period as Research Students in the University granting the degree, and produce evidence of satisfactory progress in the special study undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

IX. All candidates for the degree of D.Litt. shall present a thesis or a published memoir or work,[1] which shall be an original contribution to learning, to be approved by the Senatus on the recommendation of a Committee appointed by the Senatus; provided that, if required by the Senatus, a candidate shall also be bound to pass such examination, conducted orally or otherwise, on the subject of his thesis or of his special study as may from time to time be determined. The thesis, or memoir, or work shall be accompanied by a declaration signed by

[1] See footnote 1, p. 111.

the candidate that it has been composed by himself. If the thesis has not already been published, it shall be published by the candidate in such manner as the Senatus shall approve.

GENERAL.

X. Notwithstanding and in supplement of the Regulations as to Examinations, sections XIV. and XV., the Senatus Academicus in each University shall appoint such Professors or Lecturers as it may think suitable to conduct the examination of candidates who may offer themselves under the Regulations for Degrees in Science, or of these Regulations for the Degree of Doctor of Science, Doctor of Philosophy, or Doctor of Letters; and the University Court shall, after consultation with the Senatus Academicus, appoint an additional Examiner to act along with them. Such additional Examiner shall be a person of recognised eminence in the subject of the thesis, or memoir, or work which is to be submitted for approval. The result of the examination shall be reported to the appropriate Faculty or Committee of Senatus.

XI. The degrees of D.Sc. in Mental Science or D.Sc. in Philology shall no longer be conferred by any Scottish University.

XII. Candidates who have already completed the necessary attendance on classes required for the degree of D.Sc. in Mental Science or D.Sc. in Philology, under regulations hitherto in force in any Scottish University, may proceed to the degree of D.Phil., or of D.Litt., as the case may be, under this Ordinance:—provided such candidates comply with the provisions of Section VI. or Section IX. hereof, as the case may be, and that a period of not less than five years shall have elapsed from the date of their graduation as M.A.

XIII. The degrees of D.Sc., D.Phil., and D.Litt. shall in no case be conferred on persons who have not satisfied the conditions hereinbefore set forth, and shall not be conferred *honoris causa tantum*.

The fee to be paid for Examination for each of the degrees of D.Sc., D.Phil., and D.Litt. is ten guineas, payable when the thesis is lodged,[1] and the fee for each re-examination for each of the Degrees is £5, 5s.[1]

Candidates for Examination or Graduation must pay the Matriculation fee for the Academic year.

JOINT BOARD OF EXAMINERS FOR THE SCOTTISH UNIVERSITIES.

A Joint Board of Examiners, who control and supervise the Preliminary Examinations, is appointed annually by the University Courts of the four Scottish Universities, and holds office from 1st February to 31st January in the succeeding year. The Board sits for a year at each University in rotation, viz.:—Edinburgh, Glasgow, Aberdeen, St Andrews. The Principal

[1] The fees are payable before 20th January of the year in which the candidate proposes to graduate.

of the University at which the Board sits is Chairman for the time, and the Secretary of the University Court is Convener.

Members of the Board (which meets at Edinburgh) for the current year (1st February 1897 to 31st January 1898) :—

Chairman—Principal Sir William Muir, K.C.S.I., D.C.L., LL.D., &c.

Convener—Rev. Professor Taylor, D.D..

Appointed by Edinburgh University—Professor Saintsbury, M.A. (English); Professor Hardie, M.A. (Classics); David Beveridge Mair, Esq., M.A. (Mathematics and Dynamics); Frederick P. Walton, Esq., LL.B. (Modern Languages).

Appointed by Glasgow University—A. M. Williams, Esq.; John Edgar, Esq., M.A.; Professor Jack, LL.D.; Alfred Mercier, Esq., in English, Classics, Mathematics, and Modern Languages, respectively.

Appointed by Aberdeen University—Professor Niven, M.A.; Professor Harrower, M.A.; John Hay Lobban, Esq., M.A.; Herr Gustav Hein, Esq., in Mathematics and Dynamics, Classics, English, and Modern Languages, respectively.

Appointed by St Andrews University—John McKenzie, Esq., M.A.; John R. Pullar, Esq., M.A.; Professor Burnet; Professor Ritchie, in Classics, Mathematics and Dynamics, Modern Languages, and English, respectively.

The Joint Board from time to time issues Supplementary Regulations for the Preliminary Examination, and sets the papers, which are common to all the Scottish Universities. It also gives instructions to the Examiners with a view to secure adequate and uniform examination.

Preliminary Examination in Arts and Science.

In addition to the Regulations, Sections III. to V. inclusively, pages 99-101, the Joint Board have made the following Supplementary Regulations :—

1. *English* will include Grammar, Composition, Literature, History, and Geography.

(*a*) *Grammar* will include Analysis, Parsing, Derivation, and Correction of sentences.

(*b*) *Composition* will include an Essay and Paraphrasing.

(*c*) *Literature* will comprise a knowledge of certain prescribed books of two or three writers. Questions requiring a general knowledge of the life and works of the greater writers will not be set; but one or two questions may be set, giving an opportunity to candidates who have read widely in English Literature to show their knowledge.

The Books prescribed in English Literature are :—For 1897—1. Shakespeare: *Coriolanus*. 2. Scott: *Quentin Durward*. 3. Tennyson: *The Princess*, and *Enoch Arden*. 4. Macaulay; *Lord Clive*.

For 1898—1. Shakespeare: *The Tempest.* 2. Scott: *Heart of Midlothian.* 3. Milton: *L'Allegro, Il Penseroso, Arcades, Comus, Lycidas.* 4. Addison: Selections from *Spectator* (Macmillan, ed. Deighton). For 1899—1. Shakespeare: *Julius Cæsar.* 2. Scott: *Kenilworth.* 3. Matthew Arnold: *Selections* (Macmillan). 4. Johnson: *Life of Pope.*

(*d*) *History* will include a knowledge of one of the three following periods to be taken in successive years in the order herein mentioned, namely:—The Outlines of the History of both England and Scotland (*a*) from 1603 to the Union of the Parliaments in 1707 (for October 1897); (*b*) from the Union of the Parliaments in 1707 to the Reform Bill of 1832 (for April and October 1898); (*c*) from the Roman occupation to 1603 (for April and October 1899).

(*e*) *Geography* will include a general knowledge of the Geography of the World, and a special knowledge of the Geography of the British Empire.

2. The *Latin* Examination on the Higher Standard will be—Translation, Prose Composition, Grammar, and Sentences.

3. The *Greek* Examination on the Higher Standard will be—Translation, Sentences, and Grammar.

The passages for Translation both from Greek and Latin will include Prose and Verse.

4. The *Latin* Examination on the Lower Standard will be—Translation and Parsing, Prose Composition, Grammar, and Sentences.

5. The *Greek* Examination on the Lower Standard will be—Translation, Sentences, and Grammar.

In the Latin and the Greek papers, both on the Higher and Lower Standards, Candidates are required to satisfy the Examiners both in composition and in translation.

6. In the Examination in Mathematics on the Higher, the Intermediate, and the Lower Standards, each question in Geometry will consist of two parts, of which one will be an easy deduction or illustrative exercise on the proposition set as bookwork.

The papers in Mathematics on the Higher Standard and on the Intermediate Standard will be devoted to the various subjects comprised in them as nearly as possible in the following proportions: two-fifths to *Geometry*, two-fifths to *Algebra* (including Arithmetic, if thought desirable), and one-fifth to *Trigonometry*.

Candidates for the Higher Standard may obtain full marks by doing correctly about two-thirds of the questions set in each subject; but the Examiners will be entitled to reject a Candidate who makes in any subject less than a certain minimum of the marks allotted to that subject.

The pass mark for Candidates on the Intermediate Standard is fixed with reference to the total number of marks assigned to questions which fall under the syllabus of the Intermediate Standard; but such Candidates will receive credit for any question they may answer.

The paper in Mathematics on the Lower Standard will be devoted to the various subjects comprised, in as nearly as possible the following

proportions: four-ninths to *Geometry*, three-ninths to *Algebra*, and two-ninths to *Arithmetic*.

Candidates may obtain full marks by doing correctly about two-thirds of the questions set in each subject; but the Examiners will be entitled to reject a Candidate who makes in any subject less than a certain minimum of the marks allotted to that subject.

7. The paper on Dynamics will be directed to test the Candidate's knowledge of the fundamental principles of the subjects included in it. As far as possible each question will consist of two parts, one of which will be a numerical or other simple illustrative example of the principle with which the other part of the question deals.

About one-seventh of the paper will be devoted to *Kinematics*, and the remainder of the paper will be assigned to *Kinetics*, *Statics*, and *Hydrostatics*, in as nearly as possible equal proportions.

Candidates may obtain full marks by doing correctly about two-thirds of the questions set in each section of the paper.

Dynamics shall include the following:—

(1) *Kinematics*.—Displacements, velocities, and accelerations of a moving point, with their compositions and resolutions. Translation of a rigid body. Relative velocity of two moving points.

(2) *Kinetics*.—The laws of motion, momentum, force, energy, work, —their measures in the British and C.G.S. systems of units. Change of units. Rectilinear motion of a particle under the action of constant forces. Free motion of a body under gravity, including projectiles. Atwood's machine. Impulsive forces. Direct impact of smooth spheres.

(3) *Statics*.—Composition and resolution of co-planar forces. Theory of co-planar couples. Conditions of equilibrium of forces in one plane. Centre of mass. Friction. Machines. Application of the principle of work to machines.

(4) *Hydrostatics*.—Definitions of *solid*, *fluid*, *liquid*, *gas*. Viscosity. Measure of the pressure at a point of fluid. Law of equable transmission of pressure. Laws of variation of pressure in heavy liquids. Resultant pressure of a heavy liquid on a plane surface, including the centre of pressure of a plane surface. Principle of Archimedes. Experimental determination of the densities of solids, liquids, and gases. Atmospheric pressure. The barometer. Boyle's law. The siphon pumps for liquids, air pumps, and the diving-bell.

Questions may be set which involve the Trigonometry of right-angled triangles.

8. For the Examination in French and German—

Two papers will be set, both in French and German—an hour and a half being allowed for the first paper, and two hours for the second; the first paper to contain a passage for translation from English into French or German, with some short sentences of an idiomatic character; the second paper will contain a set of grammatical questions, two passages for translation into English (one in Verse, one in Prose), and a selection of Literary, Philological, or Historical questions, from which the Candidate will be allowed to choose *one only*.

The questions on Literature will be confined year by year to certain groups of authors, as in the following scheme, viz :—

French.—In October 1897.—(*XVIIIth Century*)—Regnard, Lesage, Massillon, Saint Simon, Voltaire, Montesquieu, Vauvenargues, Marivaux, Jean Jacques Rousseau, Diderot, Buffon, Beaumarchais, Bernardin St Pierre, Mirabeau. In April and October 1898.—(*XIXth Century*)—Chateaubriand, Mme. de Staël, Lamartine, Victor Hugo, Alfred de Musset, Alexandre Dumas, George Sand, Balzac, Prosper Mérimée, Guizot, Thiers, Mignet, Michelet, About. In April and October 1899.—(*XVIIth Century*)—Pascal, Descartes, Corneille, Racine, Molière, Boileau, La Fontaine, Mme. de Sévigné, Bossuet, Fénelon, La Rochefoucauld, La Bruyère.

German.—In October 1897.—Goethe, Schiller, Klinger, Lenz, Schubert, Arndt, Körner, Rückert. In April and October 1898.—Jean Paul, the Schlegels, Novalis, Tieck, Arnim, Brentano, Grillparzer, Heine, Uhland. In April and October 1899.—Klopstock, Wieland, Lessing, Herder, Bürger, Voss, Friedrich Leopold Stolberg, Hölty, Leisewitz.

Candidates who, having taken in *Latin* or *Greek* the Examination on the Higher Standard have failed to pass on that Standard, but have obtained a percentage of marks equivalent to a pass on the Lower Standard, may be held by the Board to have passed the Examination on the Lower Standard.

Examinations Exempting from the Preliminary Examination in Arts and Science.

The Joint Board accept the following Examinations as exempting from the Preliminary Examination in Science, either *wholly* or *in part* :—

1. A Degree in Arts or in Science, not being an Honorary Degree, in any of the Universities of the United Kingdom, shall exempt from the Preliminary Examination in Arts or in Science, as the case may be.

2. For the Preliminary Examination in Arts and Science the Higher and Honours Grade Leaving Certificates[1] of the Scotch Education Department in Latin, Greek, and Mathematics will be accepted as equivalent to the Higher Standard in each of these subjects, as prescribed by the Arts Regulations, and the Lower Grade Certificate to the Lower Standard ; the Higher and Honours Grade Leaving Certificate in English and in Modern Languages will be accepted as equivalent to the standard prescribed for each of these subjects by the Arts Regulations.

3. A Certificate of having passed in the Honours or First Division in English in the London University Matriculation Examination will be accepted as equivalent to English in the Arts and Science Preliminary Examination ; and the Joint Board also accepts for the Preliminary Arts and Science Examination (1) London University Matriculation Mathematics as equivalent to Lower Mathematics ; (2) London University Matriculation Mechanics as equivalent to Dynamics ; and

[1] See page 477.

JOINT BOARD OF EXAMINERS OF THE SCOTTISH UNIVERSITIES.

REGULATIONS FOR THE PRELIMINARY EXAMINATION IN ARTS AND SCIENCE AND IN MEDICINE —ISSUED 30TH JANUARY 1897.

The following additions have been made to the above Regulations:—

I. In connection with the Cambridge Senior Locals—The pass *with distinction* in Modern Languages will be accepted as exempting *pro tanto* for next October. [See page 119, 7 (*b*).]

II. After the date of September 1898, the following Regulations will apply to the Leaving Certificate Examination. [See also Section III. (9), page 100 of Regulations.]

1. The provisions of Ordinance No. 44. § III. (Regulations for Degrees in Arts, Supplementary to Ordinance No. 11), shall be applied in accepting the Leaving Certificate as an equivalent for the Preliminary Examination, viz.: "A candidate shall be obliged to pass in all the required subjects at one or not more than two examinations, provided that he may offer himself for re-examination as often as may be necessary to satisfy this condition."

2. If a candidate claim partial exemption from the Preliminary Examination, on the ground of having passed in certain subjects in the Leaving Certificate Examination, he shall not be allowed to reckon as *pro tanto* the certificates gained at more than one Leaving Certificate Examination, and he must complete the whole examination at one Preliminary, provided that he may repeat that examination as often as may be necessary, being examined on each occasion in all the subjects in which he failed, and which he did not profess in his Leaving Certificate Examination.

M. C. TAYLOR,
Convener.

10*th April* 1897.

[*These Regulations will, in and after October* 1898, *apply to all Entrants for Graduation.*]

(3) London University Intermediate Mathematics as equivalent to Intermediate and Higher Mathematics.

4. The Higher Certificate of the Oxford and Cambridge Schools Examinations Board will be accepted as equivalent to the Higher Standard in each subject in the Preliminary Examination in Arts and Science, and their Lower Certificate as equivalent to the Lower Standard.

This Regulation will hold only till October 1897 inclusive.

After October 1897 :—

The Lower Certificate only will be accepted for Lower Mathematics, provided the candidate has passed in three books of Euclid, and as far as Quadratic Equations in Algebra.

The Higher Certificate will be accepted for Lower Latin, Lower Greek, and Lower Mathematics, provided the latter includes Elementary and additional Mathematics ; if with distinction, to be accepted for Higher Latin, Higher Greek, French, German, and Higher Mathematics.

5. *Oxford University Senior Local Examinations*, if passed with distinction, to be accepted as exempting *pro tanto* in Higher Latin, Higher Greek, French, German, and Intermediate Mathematics, and in English provided that the candidate has passed in division 1, and in division 3, or 4, or 5 ; if without distinction, to be accepted *pro tanto* for Lower Latin, Lower Greek, and Lower Mathematics.

6. *Oxford University Higher Examination for Women* to be accepted as exempting *pro tanto* for the Arts and Science in the case of Higher Latin, Higher Greek, English, and Lower Mathematics ; and if with distinction, for French and German, and Higher Mathematics.

7. *Cambridge University Local Examinations* :—

(*a*) *Junior Locals.* The pass with distinction to be accepted for Lower Mathematics, provided the Candidate has passed in Books I., II., and III., of Euclid, and in Quadratic Equations.

(*b*) *Senior Locals.*[1] The pass to be accepted as exempting *pro tanto* for Lower Latin, and Lower Greek, and for Higher Mathematics ; and if with distinction, for Higher Latin, and Higher Greek, and English.

8. *Cambridge University Higher Local Examinations* to be accepted *pro tanto.*

9. *Victoria University.* The Preliminary Examination to be held as exempting from the Preliminary proper, but not from the Examination required for admission to a graduating class in any language. (See Section iv., Sub-sections (2) (3) of Regulations, pages 100 and 101).

10. For the Preliminary Examination in Arts and Science, the Deans of the Faculties concerned are empowered to accept, *pro tanto*, such examinations qualifying for entrance to recognised Colonial and Foreign Universities (although not included in the list of Equivalent Examinations issued by the Joint Board) as they consider to be sufficient, but on condition that they afterwards report each case to the Senate, and to the Joint Board as soon as possible.

[1] See page 477.

Dates of Entering for Preliminary Examination for the Academic Year, and for Payment of Fees.

The Preliminary Examinations are held in the Examination Hall in the University, in autumn and spring.

Each Candidate must pay a fee of 10s. 6d. for each appearance at the Preliminary Examination.

Candidates may obtain Schedules at the Matriculation Office, University (Old) Buildings, on and after 6th September 1897, and on and after 15th February 1898. The Schedules must be completed and lodged, along with the fees, not later than 17th September 1897 and 1st March 1898 for the autumn and spring Examinations respectively.

Candidates may pay the fees personally or transmit them to T. Gilbert, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, and not by cheques on private accounts. When names are not entered and fees paid on or before the stated dates, a late-entry fee of 10s. must be paid. A Candidate is not held to be entered until his Schedule is lodged, the Fee paid, and a Pass to the Examination obtained.

Time-Tables for Preliminary Examinations for Arts, Science and Medicine, and for Bursary Examinations, 1897-98.

		Medical Preliminary Examinations.	Arts, Science, Law (B.L.), and Music Preliminary Examinations and Bursary Examinations.
1897.			
Sept. 24	Fri.	... ...	Additional English for Bursaries,[1] 9-12 Italian,[1 4] 2-5
,, 25	Sat.	English, 9-12	English,[1 3 4] 9-11, 12-2 Lower Greek,[3 4] 3-6 Anglo-Saxon, for Patterson Bursary, 9-12, 2-5[5]
		Greek, 3-6 Do.[2], 3-5	

[1] Papers for the University Ordinary First Year Bursary Examination, for the Heriot University Bursaries both for men and for women, for the Heriot St George's Training College Bursaries for Graduates, and for the Bursaries offered by the Edinburgh Association for the University Education of Women.

[2] For Students under the Old Regulations.

[3] Papers for the Preferential Bursary Examination.

[4] Papers for Music Preliminary: for Italian for Music Preliminary half-an-hour more will be allowed.

The Papers for the Heriot University Bursaries for Women Students of Medicine, and for the St George's Training College Bursaries for non-Graduates, are the Preliminary Examination Papers pure and simple: candidates for these Bursaries as such are not required to take any of the additional Bursary Papers.

[5] Not open in 1897.

		Medical Preliminary Examinations.	Arts, Science, Law (B.L.), and Music Preliminary Examinations and Bursary Examinations.
1897.			
Sept. 27	Mon.	Latin, 9-12 Mathematics, 2-5	Lower Latin,[3 4] 9-12 Lower Mathematics,[3 4] 2-5
,, 28	Tu.	French, 3-6 Do.,[2] 3-5	Higher Latin,[1] 9-11, 12-2 Latin for Second and Third Year Bursaries, 9-12 French, 1st paper,[1 4] 3-4.30
,, 29	Wed.	German, 3-6 Do.,[2] 3-5	Higher Greek,[1] 9-11, 12-2 Greek for Second and Third Year Bursaries, 2.30-5.30 German, 1st paper,[1 4] 3-4.30
,, 30	Thur.	Higher Mathematics,[2] 9-11, 12-2	Intermediate and Higher Mathematics, and Mathematics for First, Second, and Third Year Bursaries,[1] 9-11, 12-2 French, 2nd paper,[1 4] 3-5
Oct. 1	Fri.	Moral Philosophy,[2] 9-11 Mechanics,[2] 1-4	German, 2nd paper,[1 4] 9-11 Dynamics,[1] 1-4 Logic and Psychology for Third Year Bursaries, 1-4
,, 2	Sat.	Natural Philosophy,[2] 9-11 Logic,[2] 2-4	Elementary Physics,[4] 9-11 Logic,[4] 2-4 Additional Latin and Greek for Ordinary Bursaries,[1] 9-12 Classics for Second and Third Year Bursaries, 9-12 Additional Mathematics for Ordinary Bursaries, and for Second and Third Year Bursaries,[1] 2-5

[1] Papers for the University Ordinary First Year Bursary Examination, for the Heriot University Bursaries both for men and for women, for the Heriot St George's Training College Bursaries for Graduates, and for the Bursaries offered by the Edinburgh Association for the University Education of Women.
[2] For Students under the Old Regulations.
[3] Papers for the Preferential Bursary Examination.
[4] Papers for Music Preliminary.
The Papers for the Heriot University Bursaries for Women Students of Medicine, and for the St George's Training College Bursaries for non-Graduates, are the Preliminary Examination Papers pure and simple: candidates for these Bursaries as such are not required to take any of the additional Bursary Papers.

		Medical Preliminary Examinations.	Arts, Science, Law (B.L.), and Music Preliminary Examinations and Bursary Examinations.
1897.			
Oct. 4	Mon.	... ...	Higher Geometry for Kelland Prize, 9-12 Gaelic for Mackinnon Bursary 9-12 Additional French and German for Ordinary Bursaries,[1] 2-5
,, 8	Fri.	MEETING OF JOINT BOARD } At 10 A.M.	
,, 9	Sat.	MEETING OF JOINT BOARD } each day.	
,, 12	Tu.	CLASSES OPEN.	
1898.			
Mar. 25	Fri.	... ...	Italian,[4] 2-5
,, 26	Sat.	English, 9-12 Greek, 3-6 Do.[2], 3-5	English,[4] 9-11, 12-2 Lower Greek,[4] 3-6
,, 28	Mon.	Latin, 9-12 Mathematics, 2-5	Lower Latin,[4] 9-12 Lower Mathematics,[4] 2-5
,, 29	Tu.	French, 3-6 Do.[2], 3-5	Higher Latin, 9-11, 12-2 French, 1st paper,[4] 3-4.30
,, 30	Wed.	German, 3-6 Do.[2], 3-5	Higher Greek, 9-11, 12-2 German, 1st paper,[4] 3-4.30
,, 31	Thur.	Higher Mathematics,[2] 9-11, 12-2	Intermediate and Higher Mathematics, 9-11, 12-2 French, 2nd paper,[4] 3-5
Apr. 1	Fri.	Moral Philosophy,[2] 9-11 Mechanics,[2] 1-4	German, 2nd paper,[4] 9-11 Dynamics, 1-4
,, 2	Sat.	Natural Philosophy,[2] 9-11 Logic,[2] 2-4	Elementary Physics,[4] 9-11 Logic,[4] 2-4
,, 8	Fri.	MEETING OF JOINT BOARD } At 10 A.M.	
,, 9	Sat.	MEETING OF JOINT BOARD } each day.	

[1] See Note 1, page 121. [2] For Students under the Old Regulations.
[4] Music Preliminary: for Italian for Music Preliminary half-an-hour more will be allowed

FEES FOR DEGREE OF M.A.

Candidates for the Ordinary Degree pay for each of the subjects of Astronomy, Chemistry, Zoology, Botany, or Geology £1, 1s., and for each of the other subjects 15s.

Candidates for the Degree, with Honours, pay the same total fees as for the Ordinary Degree.

Those who fail in the Examinations pay 10s. 6d. for re-examination in each subject.

Dates of Entering for Examinations and for Payment of Fees for M.A.[1]

Candidates may obtain Schedules at the Matriculation Office. Schedules must be lodged, Certificates shown, and Fees paid as follows :—

1. For the Examinations in October 1897, *not later than 1st October.*

2. For the Examinations in Spring of 1898 Schedules must be lodged[2] and Fees paid *not later than 4th March,* and the Matriculation Tickets and Class Certificates must be shown as follows :—For the Examinations in March at least *two clear days before* the date of the Examination in each subject ; for the Examinations in April, *not later than 26th March.*

3. For the Examinations in Chemistry, Zoology, Botany, and Geology in Summer 1898, Schedules must be lodged and Fees paid *not later than 8th July*, and Certificates shown on *Friday*, *15th July.*

When the Candidate has exhibited his Matriculation Tickets and the Certificates for Examination, the Clerk will stamp on the Receipt for the Fee the words, "Certificates examined," which entitle the Candidate to admission to the Examination Hall.

Candidates for Examination or for Graduation must be Matriculated Students of the Academic year.

Every Candidate for Graduation must produce certificates of having passed the necessary Examinations and pay the Fee of £1 for Registration as a Member of the General Council *at least one clear day before the date of Graduation.*[1]

The fees for Matriculation, Examinations for Degrees, and Registration of Graduates as Members of the General Council, are payable at the Matriculation Office, University. Candidates may pay the fees personally, or transmit them to T. Gilbert, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed "*Union Bank of Scotland* (*Hunter Square Branch*), *Edinburgh*," but not by cheques on private accounts.

Degrees are conferred by the Chancellor or the Vice-Chancellor of the University. They are not conferred *in*

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[1] When names are not entered nor fees paid on or before the stated dates, an additional or late-entry fee of ten shillings must be paid before the Candidate can be admitted to examination. A Candidate is not held to be entered for the Examination until his Name is entered, the Fee paid, and all the necessary Certificates, &c., lodged.

[2] Candidates for Special Examination in Greek for Honours in Mental Philosophy must specify this subject in their Schedules.

absentia, except on very special cause shown. Candidates must appear in Academic costume, with the appropriate hood.[1] [2]

TIME-TABLES FOR M.A. EXAMINATIONS FOR 1897-98.

		M.A. Examinations.[3]	M.A. Honours Examinations.[3]
1897.			
Oct. 5	Tu.	English, 9-11, 11.30-1.30	
		Latin, 2.30-4.30	
,, 6	Wed.	Latin, 9-11	
		Greek, 11.30-1.30,[4] 2.30-4.30	
,, 7	Th.	Mathematics, 9-11, 11.30-1.30	
		Natural Philosophy, 2.30-4.30	
,, 8	Fri.	Natural Philosophy, 9-11	
		Logic, 11.30-1.30, 2.30-4.30	
,, 9	Sat.	Moral Philosophy, 9-11, 11.30-1.30	
		History, 2-4	
,, 11	Mon.	History, 9-11	
		French, 11.30-1.30, 2-4	
,, 12	Tu.	CLASSES OPEN	
		German, 9-11, 11.30-1.30	
		Essay, 2-3	
		French Essay, 3-4	
,, 25	Mon.	Education, 9-11	
		Constitutional Law & History, 2-4	
,, 26	Tu.	Education, 9-11	
		Roman Law, 9-1	
		Constitutional Law & History, 2-4	
,, 27	Wed.	Political Economy, 9-11, 11.30-1.30	
,, 28	Th.	Philosophy of Law, 9-11	
1898.		Public International Law, 11.30-1.30	
Mar. 14	Mon.	Constitutional Law & History, 2-4	

NOTE.—In the Examinations for the Degree of M.A. in Roman Law, Public Law, and Constitutional Law and History, candidates who intend to proceed later to the Degree of LL.B. must pass on the LL.B. standard.

[1] Black silk lined with *white*.

[2] Immediately after obtaining the Degree, Candidates should apply for their Diplomas at the Matriculation office. There is no additional charge for the Diploma. Any Graduate who cannot apply personally is required to give written authority to some person to receive and give a receipt for it.

[3] It is impossible to avoid clashing between the hours of Examinations in the Pass, Honours, and Scholarship Subjects, and Candidates should carefully consider early in their Curriculum the arrangements for these Examinations, in order, as far as possible, to avoid clashing.

[4] Also for Candidates for Honours in Mental Philosophy who have not included Greek as a Subject in the Examinations for the ordinary Degree of M.A.

		M.A. Examinations[1]	M.A. Honours Examinations.[1]
1898.			
Mar. 15	Tu.	Roman Law, 9-1 Constitutional Law & History, 2-4	
,, 16	Wed.	Political Economy, 9-11, 11.30-1.30	
,, 17	Th.	Philosophy of Law, 9-11 Public International Law, 11.30-1.30 Sanskrit, 9-11, 11.30-1.30 Arabic and Syriac, 2.30-4.30	
,, 19	Sat.	Practical Chemistry, at hours to be announced (also on subsequent days if necessary). Arabic and Syriac, 9-11	
,, 21	Mon.	Chemistry, 10-12 Geology, 1-3 Oral Examinations in Science Subjects may begin	
,, 22	Tu.	Zoology, 10-12 Botany, 1-3	
,, 23	Wed.	Celtic, 9-11, 11.30-1.30 Hebrew, 2.30-4.30	
,, 24	Th.	Hebrew, 9-11 Astronomy, 11.30-1.30, 2.30-4.30	
,, 25	Fri.	Education, 9-11, 11.30-1.30 Archæology, and Art 3-5	English, 9-12, 2-5 Constitutional History, 9-12, 2-5
,, 26	Sat.	Archæology, and Art 9-11 History, 12-2, 3-5 Educn. Sch'lmr's Diploma, 12-2	English, 9-12, 2-5 Constitutional History, 9-12, 2-5
,, 28	Mon.	English, 9-11, 11.30-1.30 Logic, 3-5	English, 9-12, 2-5 Classics, 9-12, 2-5 Modern Languages, 9-12, 2-5 Logic, 9-12, 2-5 Pure Mathematics, 9-12, 2-5 History, 9-12, 2-5
,, 29	Tu.	Latin, 9-11, 11.30-1.30	English, 9-12, 2-5

[1] The order of the papers set at the particular hours fixed for the general Honours Subjects, within any department or group, may be varied at the discretion of the Examiners. See footnote 3, page 124.

		M.A. Examinations.[1]	M.A. Honours Examinations.[1]
1898.			
Mar. 29	Tu.	Logic, 3-5	Classics, 9-12, 2-5 Modern Langs., 9-12, 2-5 Logic, 9-12 Moral Philosophy, 2-5 Pure Mathematics, 9-12 Natural Philosophy, 2-5 History, 9-12, 2-5
,, 30	Wed.	Greek, 9-11,[2] 11.30-1.30 Mathematics, 3-5	Classics, 9-12, 2-5 Modern Languages, 9-12, 2-5 Moral Philosophy, 9-12, 2-5 Natural Philosophy, 9-12 2-5 History of Art, 9-12, 2-5
,, 31	Th.	Mathematics, 9-11 Moral Philosophy, 11.30-1.30, 3-5	Classics, 9-12, 2-5 Modern Languages, 9-12
Apr. 1	Fri.	Natural Philosophy, 9-11, 11.30-1.30	Classics (Optional Subjects), 9-12, 2-5
,, 2	Sat.	French, 9-11, 11.30-1.30 Essay, 2-3	
,, 4	Mon.	German, 9-11, 11.30-1.30 Essay, 2-3	
,, 6	Wed.	MEETING OF M.A. EXAMINERS FOR OLD SUBJECTS.	
,, 13	Wed.	GRADUATION CEREMONIAL at 10 A.M. COMMEMORATION SERVICE at 12 noon.	
July 16	Sat.	Practical Chemistry, at hours to be afterwards announced (also on following days if necessary).	
,, 18	Mon.	Chemistry, 10-12 Geology, 1-3 Oral Examinations in Science Subjects may begin	
,, 19	Tu.	Zoology, 10-12 Botany, 1-3	

PASS EXAMINATIONS FOR MASTER OF ARTS.

(See Time-Tables, Pages 124-126.)

The subjects for the Examinations for the Ordinary Degree in October 1897 and April 1898 are as follows :—

[1] See footnote 1, p. 125. See also footnote 3, page 124.
[2] See footnote 4, page 124.

I.—Department of Language and Literature.

1. *Latin.*

Virgil, *Eclogues* and *Æneid*, ii. and iii.—Horace, *Odes*, ii.—Martial, i.-iii. (*Sellar and Ramsay's Selections*).—Cicero, *Pro Murena*.—Tacitus, *Histories*, ii.

Translation from an Author or Authors not prescribed. Latin prose composition.

Roman History.—A general knowledge of Roman History to the death of Augustus, and a special knowledge of the period from 146 to 60 B.C.

Roman Literature.—A general knowledge of the course of Roman Literature to the death of Augustus, and a special knowledge of the Lives and Works of Virgil, Horace, Martial, Cicero, and Tacitus.

Every Candidate is required to satisfy the Examiners in translating English into Latin prose.

2. *Greek.*

Homer, *Iliad*, ix.—Aristoph., *Birds*.—Plato, *Meno*.—Thucyd., iv. Translation from an Author or Authors not prescribed. Greek prose composition.

Greek History.—A general knowledge of Greek History to the death of Alexander, and a more special knowledge of the Peloponnesian War.

Greek Literature.—A general knowledge of Greek Literature to the end of the 4th cent. B.C., and a more special knowledge of the prescribed Authors.

Laws of Hexameter and Iambic verse.

3. *English.*

The Principles of English Composition and Style: Class Lectures. History of the English Language: The First Five Chapters of Morris's "Historical Outlines of English Accidence." History of English Literature, more particularly from 1580 to 1798: Lectures, with Morley's Text Book, and the portions of Hallam's "Literature of Europe" that relate to English writers.

Special Books for October 1897—Shakespeare, *Twelfth Night* and *King Lear*—Chaucer, *The Knight's Tale*—Spenser, *The Faerie Queene*, Book ii.—Milton, *Comus*—Bacon, *Essays*—Dryden, *Essay of Dramatic Poesy*—Thomson, *Seasons*—Burke, *Thoughts on the Present Discontents*—Shelley, *Adonais*—Matthew Arnold, *Selected Poems*.

Special Books for April and October 1898—Shakespeare, *A Midsummer Night's Dream* and *Hamlet*—Chaucer, *Prologue to Canterbury Tales*—Spenser, *Shepherd's Calendar*—Milton, *Lycidus*, and *Tractate of Education*—Sir T. Browne, *Hydriotaphia*—Dryden. *Absalom and Achitophel*—Johnson, *Rasselas*—Goldsmith, *The Traveller*—Coleridge, —Stopford Brooke's *Selections*—Tennyson, *Selections* (Webb and Rowe).

4 *French.*

Mignet, *Révolution Française*—V. Hugo, *Les Châtiments, Napoléon le Petit, William Shakespeare*—Faguet, *Politiques et Moralistes, Chanson de Roland* (ed. Clédat)—Taine, *Extraits*—Rousseau, *Oeuvres choisies.*

Passages from French Authors not prescribed. French prose composition. A general knowledge of the development of the French language. A general knowledge of French history, and of the history of French Literature, with a more minute knowledge of the period 1680-1780.

Every Candidate is required to satisfy the Examiners in translating English into French prose.

5. *German.*

Walther von der Vogelweide, ed. Günther—*Brant, Luther, Sachs, Fischart*, ed. Pariser—*Kirchenlied und Volkslied*, ed. Ellinger—Schiller, *Wallenstein*, part i., ed. Breul—Schiller, *Geschichte des dreissigjährigen Krieges*, Buch iii., ed. Breul—Goethe, *Gedichte*—Riehl, *Die Ganerben*, ed. Wolstenholme—Seidel, *Der Schatz und Anderes.*

Passages from German Authors not prescribed. German prose composition. A general knowledge of the development of the language. A general knowledge of German History, and of the History of German Literature, with a more minute knowledge of the period 1740-1820.

Every Candidate is required to satisfy the Examiners in translating English into German prose.

6. *Sanskrit and Comparative Philology.*

Hitopadeśa (Johnson's ed., 1847), introduction and book i.—Nalopākhyānam (Bühler's ed.), cantos 1-12—Sanskrit Grammar—Sanskrit prose composition.

A general knowledge of the course of Sanskrit Literature.

7. *Hebrew and Oriental Languages.*

Hebrew.—1. Questions in Grammar.—2. Translation into Hebrew Prose.—3. Exodus i.-xx. Kings, books 1 and 2. Zechariah. Psalms lxxiii.-lxxxix—4. *Jewish History* from B.C. 1010-598.

Syriac.—1. Questions in Grammar—2. Translation into Syriac Prose—3. Sections i., iii., ix., xii., xiv. of Rœdiger's *Chrestomathia Syriaca* (ed. 1892); *Book of Acts* in the Peshitta Version.—4. History of the Syriac Versions of the Scriptures in detail; Wright's *Short History of Syriac Literature*, pp. 1-107.

Arabic.—1. Questions in Grammar. 2. Translation into Arabic Prose. 3. Bruennow's *Chrestomathy of Arabic Prose Pieces*, pp. 1-22, 44-55; *The Kor'an*, Sûra iii. 4. *Arabian History.*—Sir W. Muir's *The Caliphate:* its Rise, Decline, and Fall.—Chapters 1-45 and 64-67.

8. *Celtic.*

Modern Gaelic (Scottish and Irish)—*Sean Dana*—Dan an Deirg *and* Tiomnadh Ghuill, and M'Intyre's Poems, *or* Keating's Three Shafts of Death.

Old Gaelic.—Fled Bricrend (Windisch's Irische Texte).

Passages in Old and Modern Gaelic (both Scottish and Irish) from Authors not prescribed.

Translation from English into Gaelic Prose (Scottish *or* Irish).

History and Literature.—The Early History and Literature of the Scottish Highlands.

II.—Department of Mental Philosophy.

1. *Logic and Psychology.*

The elementary doctrines of Logic and Psychology; and the History of Philosophy so far as treated in the Class Lectures.—Locke's *Essay*, Book ii., Chapters 1-12, and Chapter 23; Professor Fraser's "*Selections from Berkeley*"—"Editor's Introduction"; "Principles of Human Knowledge" (sect. 1-84, and 135-156); "Divine Visual Language: A Dialogue." Hume's *Enquiry concerning Human Understanding.*—Sections 1-7 inclusive.

2. *Moral Philosophy.*

Professor's "Handbook of Moral Philosophy"; Butler "On Human Nature"; Kant's "Groundwork of the Metaphysics of Ethics"; Mill's "Utilitarianism"; Sidgwick's "Outlines of the History of Ethics," Chapters ii. and iv.

3. *Commercial and Political Economy.*

The subjects of examination are: The Lectures of the Professor; Mill's *Principles of Political Economy*, Books i.-iii.; Marshall's *Economics of Industry* (*new edition*); Adam Smith's *Wealth of Nations*, Book iv.; Professor Nicholson's *Money and Monetary Problems* (4th edition), *The Treatise on Money.*

4. *Theory, Art, and History of Education.*

Theory and Art.—Subjects of examination: Lectures of the Professor; *Locke's Thoughts* (parts which deal with moral training); *Locke on the Conduct of the Understanding; Language and Linguistic Method in the School, by Professor Laurie* (2nd edition); *Comenius' Great Didactic*, as in "*The Educational Life and Writings of Comenius*," *by Professor Laurie.*

The Theory or Science of Education comprises the Psychology and Ethics in Laurie's "*Institutes of Education.*"

History.—A general knowledge of Bacon, Ratke, Rousseau, and Pestalozzi, as in Compayré's Manual, or Quick's Educational Biographies.

5. *Philosophy of Law.*

(*See under* "*Public Law.*")

III.—Department of Science.

1. *Mathematics.*

Arithmetic.—Euclid, Books i., ii., iii., iv., vi., and xi., or their equivalent, with their application to Mensuration.—Algebra, Trigonometry, Conic Sections, Geometrical and Analytical.

Candidates must show sufficient knowledge in each of these subjects.

2. *Natural Philosophy.*

Elementary Dynamics, Astronomy and Experimental Physics.

Candidates must show sufficient knowledge both of Dynamics and of Experimental Physics.

3. *Practical Astronomy.*

The Class Lectures.—Use of the Sextant, Transit-Circle, Wire and Ring Micrometers.—Young's General Astronomy; Main's Practical and Spherical Astronomy, or corresponding portions of Brünnow's Astronomy. Sir John Herschel's Outlines of Astronomy, omitting Part IV.

4. *Chemistry.*

Chemical changes as distinguished from physical changes. Elements; compounds; mixtures. Laws of chemical combination by weight and by volume. The atomic theory. Atoms; molecules. Avogadro's Hypothesis. Molecular weights of gaseous and volatile substances. Atomic weights. Law of Dulong and Petit. Chemical Notation—Symbols; formulæ; equations. Simple chemical calculations.

The non-metallic elements and their chief compounds; especially the compounds of oxygen, of hydrogen, and of chlorine, with the other non-metals. The more important inorganic acids. The atmosphere. Combustion. Oxidation and reduction.

The following metallic elements and their chief compounds; especially those with oxygen, with chlorine, and with sulphur: Gold, platinum, silver, mercury, lead, antimony, tin, copper, bismuth, zinc, iron, aluminium, chromium, manganese, barium, strontium, calcium, magnesium, potassium, sodium.

The following salts: the ammonium salts; the more important sulphates, sulphites, thiosulphates, nitrates, nitrites, carbonates, bromides, iodides, iodates, phosphates, borates, silicates.

The relations of bases, acids, and salts. Electrolysis. Quantivalence. The periodic law.

The metallurgy of silver, mercury, copper, lead, tin, zinc, iron (including cast iron and steel). Alloys, such as brass, bronze, solder, type-metal. Amalgams.

The manufacture of aluminium, magnesium, potassium, sodium, glass, porcelain, mortar, gunpowder, sulphuric acid, sodium carbonate and bicarbonate, caustic soda, bleaching powder and chlorates, wrought-iron, steel, white lead.

Classification of Carbon Compounds. Marsh Gas and its Homologues. Chloroform. Methyl and Ethyl Alcohols and Ethers. Substituted ammonias and ammonium salts. Formic and Acetic Acids, Aldehyde, Acetone, Chloral, Olefiant Gas, Oxalic Acid, Lactic Acid. Tartaric Acid, Citric Acid. Fats and Oils, Saponification, Glycerine. Cellulose, Sugars, Starch. Distillation of Wood and of Coal. Benzene, Benzoic Acid, Phenol, Salicylic Acid, Oil of Bitter Almonds. Hydrocyanic Acid, Cyanides, Cyanates, Thiocyanates, Urea, Uric Acid.

Simple Qualitative Analysis. The examination in this is conducted practically. Candidates are required to examine unknown *single salts* for both metallic and salt radicals, as contained in the following lists:—

Silver, Mercurous, Mercuric, Cupric, Lead. Stannous, Stannic, Bismuth, Antimony (*Tartar Emetic* may be given), Arsenious, Zinc, Manganous, Ferrous, Ferric, Chromic, Aluminium, Calcium, Barium, Strontium, Magnesium, Ammonium, Sodium, Potassium.

Carbonate, Sulphite, Thiosulphate, Sulphide, Hypochlorite (Bleaching solution), Nitrite, Chloride, Bromide, Iodide, Cyanide, Sulphate, Chromate, Orthophosphate, Arseniate, Arsenite, Borate, Oxalate, Nitrate, Chlorate, Acetate.

At the examination, Candidates are supplied with the following reagents, &c.:—Acetic Acid, dilute Hydrochloric Acid, dilute Nitric Acid, Sulphuric Acid, dilute Sulphuric Acid, Alcohol, Iodine, Ammonia, Ammonium Carbonate, Ammonium Chloride, Ammonium Oxalate, Ammonium Sulphide, Barium Nitrate, Bleaching Powder, Calcium Chloride, Calcium Hydrate, Calcium Sulphate, Cobaltous Nitrate, Cupric Sulphate, Ferric Chloride, Ferrous Sulphate, Lead Acetate, Magnesium Sulphate, Mercuric Chloride, Potassium Carbonate, Potassium Chromate, Potassium Ferricyanide, Potassium Ferrocyanide, Potassium Hydrate, Potassium Iodide, Silver Nitrate, Sodium Bitartrate, Sodium Phosphate, Sodium Sulphite, Stannous Chloride, Sulphuretted Hydrogen. *Solids* — Manganese Dioxide, Sodium Carbonate, Borax, Sulphur, Zinc, Copper.

Test-papers:—Blue Litmus, Red Litmus, Plain, Starch, Turmeric.

Bunsen Burner, Test Tubes.

5. *Zoology.*

(*a*) The General Principles of Biology.

(*b*) The distinctive characters of the Invertebrate groups and the structure, habits, &c., of Amœba, Paramœcium, Hydra, Arenicola, Hirudo, Anodon, Helix, Nephrops, and Periplaneta.

(*c*) The distinctive characters of the Chordata groups and the structure, habits, &c., of Myxine, Raia, Clupea, Rana, Columba, Ornithorhynchus, Macropus, Lepus, Ovis, and Canis.

(*d*) The skeletons of Crocodilus, Equus, Felis catus, Balæna, Vespertilio, and Simia (Orang).

(*e*) A general knowledge of the orders of Sauropsida and Mammalia.

(*f*) The structure and life-history of Gregarina, Distoma, Tænia, Ascaris, Trichina, and Filaria.

(*g*) The more important facts of the development of Scyllium, Rana, Gallus, and Lepus.

(*h*) The principles of the Geographical Distribution of Animals, and the Distribution of the Mammalia.

In addition to the above subjects, Candidates will require to possess a general knowledge of Wallace's "Darwinism."

6. *Botany.*

The characteristic features of the following groups and classes of the vegetable kingdom :—

Thallophyta [Schizophyta, Algæ, Fungi]; Muscineæ [Hepaticæ, Musci]; Pteridophyta [Filicineæ, Equisetineæ, Lycopodineæ]; Phanerogamæ [Gymnospermæ, Angiospermæ (Monocotyledones, Dicotyledones)].

The fundamental facts and principles of Morphology (including Anatomy, Histology, and Development) and Physiology.

The life-history of the following plants: — Bacterium, Nostoc, Spirogyra, Saccharomyces, Mucor, Vaucheria, Agaricus, Collema, Puccinia, Claviceps, Eurotium, Marchantia, Fucus, Polysiphonia, Funaria, Aspidium, Equisetum, Selaginella, Pinus, Cycas, Scilla, Capsella, Helianthus, Ulmus, Quercus.

The characters of plants belonging to the chief British natural orders of Phanerogamæ.

7. *Geology including Mineralogy.*

1. *Dynamical Geology.*—The nature and operation of geological agents :—The Atmosphere, Rain, Terrestrial Waters, Ice, the Sea, Plants and Animals, Volcanoes, Movements of the Earth's Crust.

2. *Mineralogy.*—Characters of the chief rock-forming minerals.

3. *Petrology.*—Megascopic and Microscopic Characters, Composition, Origin and Distribution of the more important Rocks.

4. *Structural Geology.*—Structure of Rock-masses, Bedding, Joints, Cleavage, Foliation, Metamorphism, Faults, Unconformity.

5. *Stratigraphical Geology.*—History of the Geological Systems of the British Islands.

6. *Palæontological Geology.*—Characters, and distribution in time, of the more important Genera and Orders found fossil in Britain.

7. *Physiographical Geology.*—Origin of the present outlines of the Earth's surface.

IV.—Department of History and Law.

1. *History.*

Subject of Examination for 1898.

General British History, viz. :—(1) History of the British Isles from B.C. 55 to A.D. 1885, in outline; (2) History of England, Scotland, and Wales from 1215 to 1328, in fuller detail.

The Examiners will attach greater importance to a grasp of principles than to mere knowledge of details.

Books recommended:—(*a*) For the *General History*, Gardiner's "Student's History of England," Green's "Short History of the English People," Bright's "History of England," or Ransome's "Advanced History of England;" Macarthur's "History of Scotland." (*b*) For the *Special Period*, Stubbs' "Early Plantagenets" (Epochs of English History), Tout's "Edward the First" (English Statesmen), Creighton's "Simon de Montfort," Burton's "History of Scotland," vol. I.

2. *Archæology and Art* (*History of*).

The subjects for examination will be the Class lectures, the Professor's Manual "The Fine Arts," Conway's "Dawn of Art in the Ancient World," Tarbell's "History of Greek Art," Parker's "Introduction to Gothic Architecture," Poynter's "Classic and Italian Painting." Candidates will be expected to show some knowledge of the original authorities for the different periods of Art History.

3. *Constitutional Law and History.*

Subjects of examination: Constitutional Law and History of England, as treated of in the Lectures, and in the works of Stubbs, Hallam, and May; and that of the U.S. of America, of France, of Germany, and of Switzerland, as treated of in the Lectures, and in the works of Bancroft, Bryce, Adams and Cunningham, Dareste, Demombynes, &c.

4. *Roman Law.*

Subjects of examination: (1) The history of the law from the foundation of Rome to Justinian, and (2) a general knowledge of the principles and doctrines of the Law. Maine's "Ancient Law," and Muirhead's "Historical Introduction," are recommended for the historical part, and Justinian's Institutes, Bk. i. to Bk. iv., Tit. vi., must be professed for the doctrinal part.

5. *Public Law.*

I. The Philosophy of Law.

Green, Principles of Political Obligation; Ritchie, Natural Rights; Lorimer, Institutes of Law; Ahrens, Cour de Droit Naturel; Bluntschli, The Theory of the State. The Student's Austin; Holland, Jurisprudence; Pollock, First Book of Jurisprudence; Sir H. Maine's Works.

II. Public International Law.

Wheaton's "History of the Law of Nations," Nys's "Les Origines du Droit International," Hall's "International Law."

EXAMINATIONS FOR GRADUATION IN ARTS WITH HONOURS.

(*Examinations for Honours are held in April only.*)

(See Time-Table of Examinations, pp. 125 and 126.)

A.—Classics.

N.B.—It should be understood that a general acquaintance with the Greek and Latin writers of the classical age will be expected

from all candidates; and unseen passages from other than the prescribed authors will form an important part of the examination.

The subjects of Examination for the Degree of Master of Arts with Honours in April 1897 and 1898 are as follows :—

1. *Latin for April* 1898.

Plautus, *Trinummus* and *Rudens*—Virgil—Horace, *Epistles*, bk. ii. and *Arts Poetica*—Lucretius, v.—Lucan, *Pharsalia*, vii.—Cicero, *Letters* (Watson's Selection, parts i., ii.)—Tacitus, *Annals*, iii.-vi., with the Dialogue *De Oratoribus*.

Latin prose composition and translation from Authors not prescribed.

Roman History.—A general knowledge of Roman History to the end of the first century A.D., and a more special knowledge of the period from 100 B.C. to the death of Tiberius.

Roman Literature.—A general knowledge of the course of Roman Literature, and a more minute knowledge of the Lives and Writings of the Authors prescribed.

Latin for April 1899.

Plautus, *Aulularia* and *Pseudolus*—Catullus and Propertius (*Selections, ed. by Simpson and by Postgate in Macmillan's Series*)—Horace—Martial, vii.-xii. (*Sellar and Ramsay's Selections*)—Cicero, *Letters* (*Watson's Selected Letters, Parts III. and IV.*)—Quintilian, *Inst. Orat.*, x.—Tacitus, *Histories*, iii.-v. and *Agricola*.

Latin prose composition and translation from Authors not prescribed.

Roman History.—A general knowledge of Roman History to the end of the first century after Christ, and a more special knowledge of the periods 70-44 B.C., and from the death of Nero to the death of Domitian.

Roman Literature.—A general knowledge of the course of Roman Literature, and a more minute knowledge of the Lives and Writings of the Authors prescribed.

2. *Greek for April* 1898.

Homer, *Odyssey*, xiii.-xxiv.—Euripides, *Bacchae*, *Hippolytus*, *Alcestis*, *Orestes*—Demosthenes, *Leptines*, *Aristocrates*, *Timocrates*—Aristotle, *Nic. Ethics*, i.-iv. (inclusive) and x.

Greek prose composition—Translation from Authors not prescribed.

Greek History.—A general knowledge of Greek History to the death of Alexander, and a more minute knowledge of the development of the Athenian constitution.

Greek Literature.—A general knowledge of Greek Literature, and a more minute knowledge of the Authors prescribed.

Greek Grammar.—As a special subject, Monro's *Homeric Grammar* (the part relating to Homeric Syntax).

Greek for April 1899.

Homer, *Iliad*, i.-xii.—Pindar, *Nemean and Isthmian Odes*—

Æschylus, *Agamemnon*, *Eumenides*—Demosthenes, *Androtion*, *Aristocrates*, *Timocrates*—Aristotle, *Poetics*.

Greek Prose Composition—Translation from Authors not prescribed.

Greek History.—A general knowledge of Greek History to the death of Alexander, and a more minute knowledge of the development of the Athenian constitution.

Greek Literature.—A general knowledge of Greek Literature, and a more minute knowledge of the Authors prescribed.

Greek Grammar.—As a special subject, Monro's *Homeric Grammar* (the part relating to Homeric Syntax).

OPTIONAL SUBJECTS.

1. *Comparative Philology for April* 1898 *and April* 1899.

Candidates who take Comparative Philology as their optional subject for Graduation with Honours in Classics, will be examined in the following branches of Linguistic Science:—(*a*) Science of Language, including the history and general results of Linguistic research. (*b*) Principles of Indo-European Comparative Philology, with special reference to the Greek and Latin Languages. (*c*) Etymology of Greek and Latin.

Books recommended for private study:—(*a*) M. Müller, Lectures on the Science of Language. W. D. Whitney, Language and the Study of Language. B. Delbrück, Introduction to the Study of Language. (*b*) V. Henry, Short Comparative Grammar of Greek and Latin (transl. by R. T. Elliott).

Also recommended for reference:—King & Cookson, Principles of Sound and Inflexion. Brugmann & Stolz, Greek and Latin Grammar (Iwan Müller's Handbuch der Klassischen Alterthumswissenschaft, vol. ii.). Blass, Pronunciation of Ancient Greek (Cambridge University Press). (*c*) Curtius, Principles of Greek Etymology, Book ii.

Classical Archæology for April 1898.

1. The general history of the Arts of Form in Greece. To be studied in Overbeck's "Schriftquellen," and Murray's "Handbook of Greek Archæology."

2. The history of Greek Sculpture. To be studied in Murray's "History of Greek Sculpture," 2nd Ed., or E. Gardner's "Handbook of Greek Sculpture."

3. The types of Greek Coins. To be studied in P. Gardner's "The Types of Greek Coins."

Classical Archæology for April 1899.

1. The general history of the Arts of Form in Greece. To be studied in Overbeck's "Schriftquellen," and Murray's "Handbook of Greek Archæology."

2. The history of Greek Sculpture. To be studied in E. Gardner's "Handbook of Greek Sculpture," and Brunn-Bruckmann's Photographs.

3. Greek Vase Painting. To be studied in Harrison and M'Coll's "Greek Vase Painting."

Ancient Philosophy for April 1898.

The Pre-Socratic Philosophy, with original authorities as quoted in Ritter and Preller, *Historia Philosophiae Graecae;* The Sophists and Socrates; Plato, *Theaetetus*, together with the outlines of the Platonic Philosophy.

Books recommended :—Zeller, *Pre-Socratic Philosophy*, vol. i. and ii. (Translation by Alleyne). Burnet, *Early Greek Philosophy.*

Or, as an alternative :

Plato, *Philebus*, together with the outlines of the Platonic Philosophy; the Psychology and Logic of Aristotle, with special reference to Aristotle, *De Anima*, and Trendelenburg's *Elementa Logices Aristoteleae.*

Ancient Philosophy for April 1899.

The Pre-Socratic Philosophy, with original authorities as quoted in Ritter and Preller, *Historia Philosophiae Graecae;* The Sophists and Socrates; Plato, *Theaetetus*, together with the outlines of the Platonic Philosophy.

Books recommended :—Zeller, *Pre-Socratic Philosophy*, vol. i. and ii. (Translation by Alleyne). Burnet, *Early Greek Philosophy.*

Or, as an alternative :

Plato, *Philebus*, together with the outlines of the Platonic Philosophy; the Philosophy of Aristotle in its psychological and ethical aspects, with special reference to Aristotle, *De Anima*, and *Nicom. Ethics*, bks. i.-iv. and x.

B.—Mental Philosophy.[1]

1. *Logic and Metaphysics for April* 1898 *and April* 1899.

The more advanced doctrines of Logic and Psychology.

A competent knowledge of the History of Philosophy.

Plato, *Theaetetus*—Aristotle, *De Anima*—Spinoza, *Ethics*, Parts i., ii. —Locke, *Essay concerning Human Understanding*—Berkeley, in Professor Fraser's "*Selections.*"—Hume, *Treatise on Human Nature*, Book i. (Of the Understanding)—Kant, *Critique of Pure Reason*—Hegel's *Logic* in Professor Wallace's translation, chapters i.-vi.—Lotze's *Metaphysics*, Book i. (Clarendon Press).

2. *Moral Philosophy.*

The Class Lectures for Advanced Students.

Plato's *Protagoras*—Plato's *Republic*—Aristotle, *Ethics* (omitting v., vi., vii.)—Spinoza, *Ethics*, Parts iii., iv., v.—Kant, *Critique of the Practical Reason*—Hegel's *Philosophy of Right* (Dyde's Translation)—

[1] The special examination in Greek (see p. 104) will be held at the same time as the first paper of the M A Pass Examination in Greek, and will consist of (1) Passages for translation from Aristotle, *Nic. Ethics*, bk. i.; Plato, *Republic*, bk. vii., or *Protagoras*; (2) Easy passages for unseen translation from Xenophon, Plato, or Aristotle. Candidates must send in their names, and state which dialogue of Plato they offer, one month before the date of the examination.

Sidgwick's *Methods of Ethics*, Books iii. and iv.—Green's *Prolegomena of Ethics*, Books ii. and iii.—Herbert Spencer's *Data of Ethics*.

C.—Mathematics and Natural Philosophy.

Pure Geometry, Algebra, Theory of Equations, including Determinants, Trigonometry (Plane and Spherical), Analytical Geometry, Differential and Integral Calculus, Calculus of Finite Differences. (The Candidate may, if he please, profess the Elements of Quaternion Analysis.)

Experimental Physics; Analytical Dynamics and Thermodynamics; *imperative*.

In addition, two or more branches of Elementary Mathematical Physics (such as Geometrical or Physical Optics, Statical or Voltaic Electricity, Capillarity, &c.). These may be selected by the Candidate.

D.—English (Language, Literature, and British History).

1. Candidates for Honours in English must attend at least four complete courses of Lectures within their Honours group, viz.: (*a*) Not less than two Courses in English Literature, of which one at least must be an Honours Course; and—(*b*) not less than two Courses—one of which at least must be an Honours Course—in the Subsidiary subjects, English Language and British History; or in either of them.

2. Every such candidate must be examined in all the three subjects mentioned in the Regulations, Section XI. (1) *f*.

Subjects for April 1898.

1. *Literature.*

1. Rhetoric and the Principles of Literature. Knowledge of the following required:—Aristotle's *Rhetoric* and *Poetics;* Quintilian's *Institutes*, especially Books ix. and x.; Longinus, *On the Sublime;* Bacon's *Advancement of Learning*, Book II.; Bain's *Composition and Rhetoric;* De Quincey's *Essay on Rhetoric;* Masson's *Essay on Milton's English and Versification* (in Edition of Milton); Guest's *English Rhythms;* Wordsworth's *Prose Prefaces*.

2. History of English Literature. (1.) *General.—Books recommended:*—Ten Brink's *Early English Literature* (transl. by Kennedy); Stopford Brooke's *Early English Literature;* Ward's *English Dramatic Literature;* Saintsbury's *Elizabethan Literature* and *Nineteenth Century Literature;* Gosse's *Eighteenth Century Literature;* Ward's *English Poets;* Craik's *English Prose;* Irving's *History of Scottish Poetry*. (2.) *Special.*—The Literature of the Eighteenth Century. Candidates are required to show thorough knowledge of the following:—Pope, *Essay on Criticism*, *Essay on Man*, *Satires*, and *Epistles;* Swift, *Tale of a Tub*, and *Gulliver's Travels;* Thomson, *The Seasons*, and *Castle of Indolence;* Johnson, *Lives of Milton*, *Cowley*, *Dryden*, and *Pope;*

Gray's *Poems;* the poems of Allan Ramsay, Fergusson, and Burns; Cowper, *The Task;* Crabbe, *The Village;* Burke, *Thoughts on the Present Discontents.*

3. The subjects of any other Honours Course in English Literature the Candidate may have attended.

Candidates will be required to write a Critical Essay on some subject arising out of Nos. 1, 2, or 3.

2. *Language.*

1. The History of Old and Middle English.—For Books recommended for reference see under Course on the History of Old and Middle English (p. 69).

2. Special Readings—*Beowulf* (ll. 1251-1887); The Verse Passages in the *Saxon Chronicle;* Prose selections in Sweet's *Anglo-Saxon Reader;* Morris's *Specimens of Early English*, Part I.; Chaucer's *House of Fame;* Piers Plowman (Passus, iv. v. vi.); *The Kingis Quair;* Gavin Douglas's *Prologues to the Æneid.*

3. Unseen passages for translation into Modern English.

3. *British History.*

Those branches of British History which form the subjects of the Courses given by the Professors of History. Candidates to intimate the subjects they select at the time of entering their names for Examination.

Subjects for April 1899.

1. *Literature.*

1. Rhetoric and the Principles of Literature. Knowledge of the following required:—Aristotle's *Rhetoric* and *Poetics;* Quintilian's *Institutes*, especially Books ix. and x.; Longinus, *On the Sublime;* Dante, *De Vulgari Eloquio;* Jonson, *Discoveries;* Dryden, *Essay of Dramatic Poesy;* Johnson, *Lives of Cowley*, *Milton*, *Dryden*, *Pope*, and *Gray;* De Quincey's *Essay on Rhetoric;* Masson's *Essay on Milton's English and Versification* (in Edition of Milton); Guest's *English Rhythms;* Wordsworth's *Prose Prefaces;* Coleridge, *Biographia Literaria*, cap. xiv. to end; M. Arnold, *Essays in Criticism* (Preface and two first Essays with Prefatory Essay to Ward's *Poets*).

2. History of English Literature. (1.) *General.—Books recommended:*—Ten Brink's *Early English Literature* (transl. by Kennedy); Stopford Brooke's *Early English Literature;* Ward's *English Dramatic Literature;* Saintsbury's *Elizabethan Literature* and *Nineteenth Century Literature;* Gosse's *Eighteenth Century Literature;* Ward's *English Poets;* Craik's *English Prose;* Irving's *History of Scottish Poetry.* (2.) *Special.*—The Literature of the Nineteenth Century. Candidates are expected to show a thorough knowledge of the following:—Wordsworth, *Lyrical Ballads*, *Excursion*, and *Duddon Sonnets;* Coleridge,

Stopford Brooke's *Selections;* Byron, Shelley, Landor, and Southey, in the Golden Treasury Series; Keats, *Poems;* Macaulay, Essays on *Restoration Drama*, *Clive*, *Ranke*, *Boswell's Johnson;* Carlyle, *Sartor Resartus* and *John Sterling;* Tennyson, *Poems* (up to 1850); Browning, *Selections;* M. Arnold, *Selected Poems* and *Essays in Criticism;* Ruskin, *Selections*, Vol. I.

3. The subjects of any other Honours Course in English Literature the Candidate may have attended.

Candidates will be required to write a Critical Essay on some subject arising out of Nos. 1, 2, or 3.

2. *Language.*

1. The History of Old and Middle English.
   Text-books for reference.—See under Course on the History of Old and Middle English, p. 70.
2. *Special Readings.*—*Beowulf* (ll. 1251-1887); The Verse Passages in the *Saxon Chronicle;* Prose Selections in Sweet's *Anglo-Saxon Reader;* Morris's *Specimens of Early English*, Part I.; Chaucer's *Minor Poems* (ed. Skeat); *Laurence Minot; The Kingis Quair;* Gavin Douglas's *Prologues to the Æneid.*
3. Unseen passages for translation into Modern English.

3. *British History.*

Those branches of British History which form the subjects of the Courses given by the Professors of History. Candidates to intimate the subjects they select at the time of entering their names for Examination.

E.—Modern Languages and Literature.

1. *French for April* 1898.

Darmesteter, *Morceaux choisis du* 16*me siècle*—Vie de Saint-Alexis (ed. Gaston, Paris)—V. Hugo, *Légende des Siècles*, *Contemplations*, and *Torquemada*—*Extraits de Rousseau*—Montesquieu, *Esprit des Lois*—Taine, *Extraits.*

French History—A general knowledge of French History, and a more minute knowledge of the period from 1789 to 1870.

French Literature.—A general knowledge of the history of French Literature, and a special knowledge of the period from 1802 to 1889.

Romance Philology.—The general principles of Romance Philology (Brachet, *Grammaire historique;* Bartsch, *La Littérature française jusqu'au* 14*me siècle;* Brunot, *Grammaire historique*, 3rd ed.).

French for April 1899.

Clédat, *Morceaux choisis du Moyen-Age;* Faguet, *Etudes sur le* 19*me siècle*—Faguet, *Politiques et Moralistes au* 19*me siècle*—Lanson, *Histoire de la Littérature française*—Taine, *Extraits.*—Michelet, *Précis de la Révolution française*—V. Hugo, *Les Contemplations.*

French History, *French Literature*, and *Romance Philology* as for 1898.

German for April 1898.

Althochdeutsche Litteratur (ed. Schauffler)—Walther von der Vogelweide (ed. Bartsch); *Das deutsche Kirchenlied des* 16. *und* 17. *Jahrhunderts* (ed. E. Wolff, Kürschner); *Musterstücke aus Werken* Winckelmann's (ed. Kühne, Weidmann); Schiller, *Über naive und sentimentalische Dichtung* (ed. J. Egger und K. Rieger, Gräser); Goethe, *Faust*, *I. Teil* (ed. J. Lee); Storm, *Aquis submersus*; G. Freytag, *Aus dem Jahrhundert der Reformation* (Bilder aus der deutschen Vergangenheit).

German History.—A general knowledge of German History, and a more minute knowledge of the period from 1700 to 1820.

German Literature.—A general knowledge of German Literature, and a special knowledge of the period from 1740 to 1832 (Scherer, *History of German Literature*: Kluge, *National-Litteratur*).

Teutonic Philology.—The general principles of Teutonic Philology, and a more intimate knowledge of Modern German Etymology (Duden, *Etymologie der Neuhochdeutschen Sprache*).

German for April 1899.

Althochdeutsche Litteratur (ed. Schauffler)—*Hartmann von Aue*, &c. (ed. Marold)—*Das deutsche Heldenbuch* (ed. Henrici)—Herder, *Von deutscher Art und Kunst* (ed. Lambel)—Goethe, *Iphigenie* (ed. Breul)—Schiller, *Kleinere philosophische Schriften* (ed. Boxberger)—J. P. F. Richter, *Flegeljahre* (ed. Nerrlich)—Shakespear, *Hamlet*, übersetzt Schlegel (ed. Sachs).—Platen, *Gedichte*—Scheffel, *Ekkehard*.

German History, *German Literature*, and *Teutonic Philology*, as for 1898.

F.—History.

Candidates for Honours in History must attend two Classes (one at least of which must be an Honours Class) in each of their Honours Subjects.

The Honours subjects at present recognised are (1) Modern History, (2) Constitutional History, and (3) History of Art.

I. Under the head of *Modern History* four papers will be set.

Subjects for 1898.

(1) General survey of British History from B.C. 55 to A.D. 1885, with special attention to the period 1215-1328. Some knowledge of Stubbs' "Select Charters," and of Barbour's "Bruce," will be required.

(2) "Great Britain and Europe, 1815-1878," with special attention to the Revolution of 1848. Some knowledge of Lamartine's "Histoire

de la Revolution de 1848," and of Louis Blanc's "Histoire de la Revolution de 1848," will be required.

Subjects for 1899.

(1) General survey of British History, from B.C. 55 to A.D. 1885, with special attention to the period 1603-1689. Special books—Gardiner's "Documents"; Carlyle's "Cromwell."

(2) "England, Scotland, and France at the close of the Middle Ages, A.D. 1415-1485." Special books—"Mémoires de Commines"; "Paston Letters"; Fortescue, "Governance of England."

II. In *Constitutional History* (*cf.* CALENDAR) four papers:—

Subjects for 1898 *and* 1899.

(1) and (2) Constitutional History of England (*a*) from 1066 to 1450; (*b*) from 1688 to 1707.

(3) Historical Origins of the chief European Constitutions.

(4) History of Civil and Religious Liberty, from 1384 to 1563.

The Candidate must show some familiarity with the original sources (in Latin, French, Old English, &c.).

III. In *History of Art* four papers:—

Subjects for 1898.

(1) The general subject (two papers) embracing:—The Class Lectures; the Professor's Manual "The Fine Arts"; Conway's "Dawn of Art in the Ancient World"; Woltmann's "History of Painting," Vols. I. and II.; select passages bearing on Ancient Art from Overbeck's "Schriftquellen"; portions of Theophilus' "Schedula Diversarum Artium"; selected lives from Vasari's "Lives of the Italian Artists"; Lady Dilke's "Art in the Modern State."

(2) Classical Archæology (two papers). The examination will be in the same books, &c., as those prescribed in this subject in 1898 for Honours in Classics (see p. 135), and the papers will be set at the same time.

Subjects for 1899.

(1) The general subject (two papers) embracing:—The Class Lectures; the Professor's Manual "The Fine Arts"; Conway's "Dawn of Art in the Ancient World"; Maspero's "Dawn of Civilization" and "The Struggle of the Nations"; Woltmann's "History of Painting," Vol. I.; Vasari's "Lives" of Giotto, Angelico, Donatello, Brunelleschi, Michel Angelo (with Richter's Notes in Vol. VI. of Bohn's Translation of the "Lives;" Lady Dilke's "Art in the Modern State."

(2) Classical Archæology (two papers). Same as for Classics in 1899. (See p. 135, and above.)

REGULATIONS FOR SCHOOLMASTER'S DIPLOMA.

1. Candidates for the Schoolmaster's Diploma must be graduates in Arts of a Scottish, English, or Irish University, or of some other University approved of by the Senatus and the University Court.

2. Each Candidate must have matriculated in the University for the year in which he presents himself for the Diploma.

3. Each Candidate must have attended the Class of the Theory, Art, and History of Education in the University.

4. Each Candidate must pass an Examination in the Theory, Art, and History of Education, to be conducted by the Professor of that subject, and an Examiner appointed by the University Court.

5. The subjects of Examination are announced annually in the *University Calendar*.

6. Each Candidate must give evidence either—

(*a*.) That he has attended a Course of Practical Instruction as a Queen's Scholar in a Training College for Teachers; *or*

(*b*.) That he has gone through a complete course of Practical training in a Training College for Teachers—the Course to extend over not less than five months (eight hours weekly), and to include Demonstration and Criticism Lessons; *or*,

.. That she has completed a Practical Course in St George's Training College, Edinburgh, and passed the practical examination of the University of Cambridge Syndicate.

7. Each Candidate must further satisfy the University of his practical aptitude as a Teacher by teaching a class in some special Subject or Subjects in which he has received instruction in the University, or in any Institution recognised by the University as qualifying for Degrees.

8. Each successful Candidate will receive a Diploma signed by the Vice-Chancellor of the University, or, in his absence, by the Principal or the Senior Professor. This Diploma is of two grades: (*a*) *Secondary School Diploma*, for Masters of Arts with Honours in any Department, testifying to their fitness for Secondary Schoolmasterships, and will state the Special Subjects in which the holder of the Diploma is qualified; (*b*) *General Diploma*, for those who have taken the ordinary Degree of M.A. This is recognised by the Scottish and English Education Departments as qualifying (in the case of Graduates of the University of Edinburgh) for employment in Public Schools. When a Candidate requires special mention made of his competency to teach French or German, he is required to pass a practical examination in French or German pronunciation and conversation.

9. The Fee for the Diploma is £2, 2s.

The next Examination will begin on Friday, 25th March 1898, at 9 o'clock, and Candidates are required to enter their names and pay the Fee at the *Matriculation Office* on or before 5th March.

The subjects of Examination are the same as for Graduation in

Education (which see, page 129), but the Standard of Pass is much higher, *with the addition* of Milton's "Tractate"; Quintilian's "Institutions," Books I. and II.; and "The History of Education, Hellenic and Roman," as in the "Historical Survey of Pre-Christian Education," by the Professor; and the General Outlines of History, as in Quick's "Biographies," from 1750 A.D.

A short Thesis will be prescribed to be written in the Examination Room on an Educational subject.

Competitive Examinations for Bursaries in Arts.

HONOURS LIST.

October 1896.

I.—Students Entering First Session.

A. General Bursary List.

(*Subjects of Examination* — English, Latin, Greek, Mathematics, French, German, Italian, and Dynamics, with additional papers in English, Latin, Greek, and Mathematics. Candidates select not more than five subjects. Those who select Latin, Greek, or Mathematics take the papers on these subjects on the Higher Standard.)

1. Alexander Thomson, Rothesay Academy.
2. H. J. Anderson, George Watson's College.
3. Thomas Davidson, George Watson's College.
4. Alexander Cunnison, George Watson's College.
5. J. B. Jamieson, Royal High School.
6. G. V. Dunnett, Kilmarnock Academy.
7. John MacRae, George Watson's College.
8. W. S. Colville, Campbeltown Grammar School.
9. W. D. R. Prentice, Fettes College.
10. T. F. Scott, George Watson's College.
11. John Tait, George Watson's College.
12. Malcolm Campbell, George Watson's College.
13. Kenneth Maclennan, Daniel Stewart's College.
14. Henry Speirs, George Watson's College.
15. J. P. Dunn, George Watson's College.
16. James Girdwood, Ayr Academy.
17. J. A. Ferguson, Daniel Stewart's College.
18. T. C. Lowe, Dollar Academy.
19. James Brownlee, Daniel Stewart's College.
20. Samuel Burns, Ayr Academy.
21. James Watt, George Watson's College.
22. W. E. Wait, Fettes College.
23. William Mackenzie, George Watson's College.

25. { G. S. Murray, Daniel Stewart's College.
    { A. R. Normand, Royal High School.

26. { T. M. Watt, Ayr Academy.
    { Jessie Lees, Ayr Academy.

28. W. K. Tait, Royal High School.
29. D. M. Craig, Daniel Stewart's College.
30. G. S. Banks, George Watson's College.
31. D. G. M. Leith, Harris Academy, Dundee.
32. Robert Hamilton, Wallace Hall Academy.

B. GEORGE HERIOT BURSARIES FOR WOMEN (ARTS).

(*Subjects as for First Year Open Bursaries.*)

1. Bessie K. Hogg, George Watson's Ladies' College.
2. Johanne F. Thomsen, Edinburgh Ladies' College.
3. Isabella W. Stevenson, Edinburgh Ladies' College.
4. Helen S. Neill, Edinburgh Ladies' College.
5. Jessie Lees, Ayr Academy.
6. Williamina Smith, Ballater Public School.
7. Lizzie Y. Drummond, Wallace Hall Academy.
8. Margaret S. Cook, Wallace Hall Academy.
9. Annie G. Brown, Kirkcudbright Academy.
10. Helen A. Lawson, Dollar Institution.
11. Jessie H. Anderson, Edinburgh Ladies' College.

C. GEORGE HERIOT BURSARIES FOR WOMEN (MEDICINE).

(*Subjects of Examination*—The Preliminary Examination for Arts or Science.)

Margaret M. Smith, George Watson's Ladies' College.

II.—SECOND YEAR BURSARIES.

(*Subjects of Examination*—Latin, Greek, and Mathematics.)

J. S. Ross.
B. H. Richardson.
J. M. Dunnett.
J. Y. Bell.

III.—THIRD YEAR BURSARIES.

(*Subjects of Examination*—Classics, Mathematics, and Logic with Psychology.)

Alexander Flint.
J. Adam Gray.

IV.—PATTERSON BURSARY IN ANGLO-SAXON.

G. Dundas Craig.

V.—KELLAND PRIZE.

Archibald Milne.

GRADUATES IN ARTS.

HIGHER DEGREES.

1897.

DOCTOR OF LETTERS (D.LITT.).

Alexander Douglas Thomson, M.A. (Edin.). *Thesis*—"Euripides and the Attic Orators: A Comparison."

1897.

DOCTOR OF PHILOSOPHY (D.PHIL.).

John Davidson, M.A. (Edin.). *Thesis*—"Wage Theories and Wage Factors."

Robert Latta, M.A. (Edin.). *Thesis*—"An Introduction to the Philosophy of Leibnitz, with Translation of Selections from the Works of Leibnitz."

Hugh Ross Mackintosh, M.A. (Edin.). *Thesis*—"The Ritschlian Doctrine of Theoretical and Religious Knowledge."

Patrick Johnston Maclagan, M.A. (Edin.). *Thesis*—"The Philosophical Theory of Lao-tsze, with a Translation of the Tao-teh King, and Critical Commentary."

SPONSIO ACADEMICA FOR M.A.

Nos qui Nomina subsignamus Magisterii titulo jamjam donandi Spondemus nos in omni debitae gratitudinis officio erga Universitatem Academicam Edinburgensem ad extremum vitae halitum perseveraturos.

DEGREE OF M.A. WITH HONOURS—1889-1897 *inclusively.*

The names of all Graduates in Arts with Honours previously to 1889 will be found in the List of Graduates of the University published in 1889.

The contractions Class., Phil., Math., Engl., and Nat. Sc., indicate the Departments or Groups of Classics, Mental Philosophy, Mathematics and Natural Philosophy, English, and Natural Science, respectively; and the Italic Numerals, i., ii., and iii. indicate First, Second, and Third (inst. in 1892*) Class Honours respectively.*

1889.

Class. i., Patrick Duncan, Harry Angus Alexander Kennedy, Thomas Ross Mills, Jas. Cruickshank Smith, John Tennant.

Class. ii., Robert Alex. Falconer, Alexander Harris Hutt.

Phil. i., Charles Mackinnon Douglas, William George Smith.

Phil. ii., David Walton Vaughan.

Math. i., James Ireland Craig, William Andrew Knowles, Jas. Fairbairn M'Kean.

Nat. Sc., Alexander Bremner, John Brown Clark, David Davidson, John Melvin Lowson, Robert Stewart M'Dougall, John Machray, John Hally Meikle, Harry Fisher Menzies, Alexander Gordon Wallace, John Young.

1890.

Class. i., John Maclennan, James Watt.

Class. ii., William Brereton Dennison, William Barron Stevenson.

Phil. i., Andrew Nisbet Bogle, Duncan Mackenzie, Thomas Dixon Rutherford, James Stewart.

Phil. ii., Henry Reynolds Brown, William Elmslie Wilkie Brown Dempster, Arthur Herbert Gray, Walter Hardie.

Math. i., Charles Tweedie.

Nat. Sc., James Adamson, William Lewis Martin, John Myles, Andrew Robertson Wilson.

1891.

Class. ii., John Adam Norrie, William Gibson Wedderspoon.

Phil. i., Henry Barker, John Davidson, Walter Charles Murray.

Phil. ii., Alexander Grieve, Wm. Allan Neilson, Alexander Joseph Pearse.

Math. i., John Forbes, Adam Mitchell Hunter, William Edward Philip, William Leslie Thomson, John Turner.

Nat. Sc., Robert Pollok, James Rodger Watson.

1892.

Class. ii., Peter Campbell, William Gracie, Hugh Ross Mackintosh.
Phil. i., Hugh Ross Mackintosh.
Phil. ii., Thomas Linton, William Joseph Pennell.
Math. i., James Mitchell.
Math. ii., Alexander Campbell Mackay.
Nat. Sc., John Smith Flett.

1893.

Class. i., Robert Gordon McKerron.
Class. ii., Walter Robertson Henderson, Hugh Lugton Jackson, Robert Montgomerie Samson.
Phil. i., Alexander Beith Macaulay, Hugh Pattison Macmillan, Lilias Maitland.
Phil. ii., William John Collier, Sydney Smith, William Finlayson Trotter.
Math. i., Neil Macmichael.
Math. ii., George Lowe Moffat, Frank Spence, Thomas Wilkie Wilson, James Wood.
Nat. Sc., Frank Spence, William White Taylor, William Watson.

1894.

Class. i., George Liddell, James Middleton Moore, Robt. Lindsay Ross.
Phil. i., James Black Baillie.
Math. i., Alexander George Burgess, John Watt Butters, Henry Herd, John Alexander Johnston.
Math. ii., Thomas Cleghorn Baillie.
Nat. Sc., John Watt Butters.

1895.

Class. i., Francis Dewar, William John Keith, Alexander Buchanan Macdonald, William Wallace M'Kechnie, Alfred Croom Paterson, William David Ross.
Class. ii., George Duncan Low, Peter M'Gregor, James MacKenna, Charles Cunningham Watson.
Phil. i., John Macaskill.
Phil. ii., James Bonnar Russell, Robert Whyte.
Math. i., John Forbes Cameron, Hugh Archibald Jamieson, James Alexander Macdonald, Thomas William Pickles.
Math. ii., Robert Candlish Melville Bell.
Engl. i., David Nichol Smith.

1896.

Class. i., Charles Samuel Edgar, Alexander Macgregor, Jessie Thomson Muir.
Class. ii., Marshall Newton Goold Gray, Tom Bell Maxwell Lamb, William Robb.
Math. and Nat. Phil. i., William Jeffrey, Malcolm Caird M'Alpin, Andrew Cameron Smith, Frank Guthrie Smith.
Math. and Nat. Phil. ii., John Smith Begg, Leopold Octavius Critchley.
Engl. i., George Douglas Shepherd.
Engl. ii., Emily Moir Milligan.
Engl. iii., Louisa Reid Boyd.

10th April 1897.

Class i., Sidney George Campbell, William Alexander Curtis, Arthur Berriedale Keith, Donald Allan Macnaughton, Thomas Stewart Macpherson.

Class. ii., David William Inglis, Ethelwyn Lemon, William Mackenzie, George Robert Thomson Ross.
Class. iii., Marcus Dods.
Phil. i., Charles Macfie Campbell, Bruce M'Ewen, Frances Helen Melville, George Claus Rankin, George Robert Thomson Ross.
Phil. ii., Alfred George Hogg.
Math. and Nat. Phil. i., Richard Bell, Alexander Brown, James Chalmers Leighton.
Math. and Nat. Phil. ii., David Macrae Aitken, George Ednie, William David Proudfoot.
Engl. i., George Dundas Craig.

ORDINARY DEGREE, 1896-97.

1st August 1896.

James George Silver Jamieson.
Alexander Rea Johnston.
William Mair.
Colin Campbell Nicolas.

24th October.

Colin Sinclair Murray Brown.
John Fairbairn.
John William Falconer.
William Fowler.
Andrew Jude.
William Marshall Low.
James Reid.
George Alexander Ross.

9th April 1897.

Allardice, Agnes Elizabeth Fleming.
Anderson, Andrew Melville.
Bain, Alexander.
Biggam, William M'Neil.
Cameron, Duncan Donald.
Clark, James.
Cook, Mary Paterson Gow.
Crichton, Alexander Smith.
Currall, Richard Thomas.
Davidson, James Allan.
Dickson, George Soutar.
Douglas, William Clark.
Duncan, Henry Cecil.
Duncan, Nettie Russell.
Edwards, Robert Auchterlonie.
Fallas, Marshall Newton Goold.
Firth, Arthur Harcus.
Forrest, Andrew James.
Forsyth, James.
Fraser, William Henry.
Graham, Edith.
Graham, Lilian Cuthbertson.
Hall, Peter Taylor.
Henderson, William M'Kelvie.
Horsburgh, Ellice Martin.
Husband, William.
Kerr, Samuel Kerr Gifford.
Kyd, James Anderson.
Lowson, Catherine Guthrie.
Lowthian, John Wilson.
MacDonald, Charlotte Balfour.
Macfie, Helen.
Malcolm, Edward Ellice.
Matthew, Frederick Crichton.
Matthew, Grace Fairley.
Mechie, James Henderson.
Meeke, Hugh Craig.
Menzies, Alan Wilfrid Cranbrook.
Murray, George.
Noble, Alexander Bertram.

Paterson, Alice.
Prentice, William Hogg.
Price, Henry Wallace.
Pringle, William.
45 Rankine, John Charles.
Robertson, David.
Robertson, Jessie Ann.
Ross, John.
Sharp, Alexander M'Gregor.
50 Stewart, David Tweedie.
Stewart, Donald Alexander.
Swanson, George.
Symington, Jane Mackie.
Taylor, Andrew Burt.
55 Walker, Henry.
Wallace, James George.
Ward, Peter.
Wilson, Samuel Alexander Kinnier.
Winchester, James.

SCHOOLMASTER'S DIPLOMA, 1896-97.

The Diploma was conferred on the following Candidates :—

A.—DIPLOMA FOR TEACHERS IN SECONDARY SCHOOLS.

10*th April* 1897.

Tom Bell Maxwell Lamb, M.A., Edin. (Second-Class Honours, Classics).
William Macpherson, M.A., St Andrews (First-Class Honours, Philosophy ; Second-Class Honours, Classics).
Elizabeth Stevenson (Camb. Certificate ; B.A. Classical Tripos).

B.—GENERAL DIPLOMA.

24*th October* 1896.

John Fairbairn, M.A. (Edin.).

10*th April* 1897.

Nettie Russell Duncan, M.A. (Edin.).
Alice Paterson, M.A. (Edin.).
Charlotte Elizabeth Tweedie, M.A. (Edin.).

LITERATES IN ARTS, 1896-97.

Elisabeth Gardiner.
John Laidlaw.

Bursaries, Prizes, Scholarships, and Fellowships in Arts.

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I.—BURSARIES.

No. of Foundation.	Year of Found.	Name of Founder	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
			At present				
I.	16—	George Heriot.	£480 0 0	16	3	£30 0 0	Governors of George Heriot's Trust.
		Do. Bursaries for Girls.	720 0 0	24	3	30 0 0	Do.
		Do. Hospital School University Bursaries.	450 0 0	15	3	30 0 0	Do.
		Do. High School Univer. Bursaries.	270 0 0	9	3	30 0 0	Do.
II.	1619	Archibald Johnston, Merchant in Edin.	13 2 2	1	4	13 2 2	Earl of Haddington.
III.	1622 1764 1766	John Trotter of Mortonhall, and Rev. J. Penman of Bothkennar.	12 18 1	1	4	12 18 1	Trotter of Mortonhall and Gilmour of Craigmillar, alternately.
IV.	1626 1629 1640 1726	Hugh Wight, David M'Call, and David Christie.	13 1 1	1	4	13 1 1	Town Council.
V.	1639	Dr Robt. Johnstone of London.	31 10 0	2	4	15 15 0	Hope Johnstone of Annandale.
VI.	1639	Do. do.	25 0 0	2	4	12 10 0	Town Council.
VII.	1642 1653 1696	Weir, Jenkins, Hepburn, and Lightbody.	11 7 9	1	4	11 7 9	Town Council, 1st and 2nd Presentations, and Campbell of Aberuchill, 3rd Presentation.
VIII.	1644 1673	Jas. Dalgliesh. and Jn. M'Morran.	13 7 8	1	4	13 17 8	Town Council.
IX.	1678	John Penman, Bailie and Merchant, Edinburgh.	14 15 0	1	4	14 15 0	Society for the Benefit of the Sons of the Clergy.
X.	1678	Hector Ford of Branxton.	33 6 6	3	4	11 2 2	Town Council.
XI.	1687	Sir Andrew Ramsay of Abbotshall.	11 2 2	1	4	11 2 2	Do. and Ministers of Edinburgh.
XII.	1698	Ad. Chrystie, Under Clerk of Session.	18 0 0	1	4	18 0 0	Faculty of Advocates.
XIII.	1702	Thos. Bryson, Bailie and Merchant in Dunbar.	10 0 0	2	4	5 0 0	Ministers of the Presbytery of Dunbar.
XIV.	1703 1725	Pringle and Wardrop.	17 3 10	1	4	17 3 10	Pringle of Torwoodlee and J. C. Wardrop, W.S., alternately.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
XV.	1714	Rev. Robert Brown, of Protestant Consistory at Zamose.	£25 0 0	2	4	{ £15 0 0 10 0 0	Town Council.
XVI.	1723	Alexander Mitchell and James Shortt.	22 0 0	1	4	£2 0 0	Livingston Learmonth of Parkhall and his heirs; Earl of Morton and his heirs.
XVII.	1734	Laurence Dundas, Professor of Humanity in the University of Edin.	About 42 0 0	2	4	About 21 0 0	Jas. Dundas of Dundas, Robt. Dundas of Arniston, and Dundas of Carronhall, by turns.
XVIII.	1768	Thos. Fraser, Clerk in the office of City Clerk, Edinburgh.	43 10 0	2	7	21 15 0	The Provost, Dean of Guild, and Treasurer of Edin.
XIX.	1784	William Hume, Eastbarns, Dunbar.	16 0 0	2	4	8 0 0	Ministers of the Presbytery of Dunbar.
XX.	1784	Rev. Jas. Millar and Spouse.	About 24 0 0	1	4	About 24 0 0	Kirk-Session of Kippen.
XXI.	1809	Dr Donald Grant, London.	180 0 0	4	4	45 0 0	Earl of Seafield, and James Mackenzie, W.S., as Dr Grant's Trus.; whom failing, Sen. Acad.
XXII.	1810	Rev. James Stuart.	36 0 0	2	3	18 0 0	Senatus Academicus.
XXIII.	1837	James Menzies.	200 0 0	4	4	45 0 0	Sir R. Menzies, Bart., & Ministers of Dull, Weem, & Fortingall.
XXIV.	1837	Peter Dow, Esq. of Balmyle.	20 0 0	2	4	10 0 0	P. S. Keir, Esq. of Kindrogan, J. Small, Esq. of Dirnanean, and W. A. Keir, Esq., Yr. of Kindrogan.
XXV.	1838	Robert Blair, D.D., Barton St Andrews, Norfolk.	9 12 6	1	3	9 12 6	Principal, and Profs. of Latin, Greek, Mathematics, Logic & Metaphysics, and Moral Philosophy.
XXVI.	1846	John Jamieson, Esq., Edinburgh.	About 26 0 0	1	4	About 26 0 0	Principal, & two Profs. of the University.
XXVII.	1846	G. P. Bidder, C.E.	43 12 0	1	4	43 12 0	Senatus Academicus.
XXVIII.	1852	Wm. Lennie, Esq.	48 0 0	4	4	12 0 0	Town Council.
XXIX.	1853	John Bruce, Esq., Trinity Crescent, Edinburgh.	160 0 0	{ 1 4	4 4	40 0 0 30 0 0	Do.
XXX.	1858	M'Diarmid Trustees.	10 0 0	1	3	10 0 0	Senatus Academicus.
XXXI.	1860	Wm. Patrick, Esq., of Roughwood.	About 120 0 0	3	4	About 40 0 0	Principal and Professors in Arts.
XXXII.	1858	Edin. Ayrshire Club.	60 0 0	2	2	30 0 0	Edin. Ayrshire Club.
XXXIII.	1863	Peeblesshire Society.	20 0 0	1	4	20 0 0	Peeblesshire Society.
XXXIV.	1864	Edin. Caithness Association.	10 0 0	1	4	10 0 0	Edin. Caithness Association.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars	For Years.	Annual Allowance to each Bursar.	Patrons.
XXXV.	1864	A. H. Rhind of Sibster.	Interest of £500 0 0	1	4	About £20 0 0	Edin. Caithness Asso
XXXVI.	1865	Mrs Margt. Tyndall Bruce, of Falkland.	165 0 0	3 3	3 3	35 0 0 20 0 0	Senatus.
XXXVII.	1865	Horsliehill Scott.	66 12 4	2	2	33 6 2	Do.
XXXVIII.	1867	Miss Hannah Harrison, of Lasswade.	33 5 0	1	2	33 5 0	Do.
XXXIX.	1867	Rev. John Spence	About 200 0 0	5 1	2 1	1st Year 30 0 0 2nd Year 40 0 0 50 0 0	Governors of the Spence Bursary Trust.
XL.	1869 1872	Edin. Border Counties Association.	50 0 0	1 1	4 4	30 0 0 20 0 0	Edinburgh Border Counties Assoc.
XLI.	1869	Argyllshire, Bute, and Western Isles Asso.	12 0 0	1	4	About 12 0 0	Argyllshire Association.
XLII.	1870	Stewart of Ardvorlich.	16 0 0	1	4	16 0 0	Proprietor of the Estate of Ardvorlich.
XLIII.	1870	David Cowan.	About 35 0 0	1	2 1	About 30 0 0 20 0 0	Directors of Ayr Academy.
XLIV.	1871	J. Robertson Sibbald.	About 150 0 0	5	3	30 0 0	Tr. of Dr J. R. Sibbald.
XLV.	1872	Angus Club.	25 0 0	1	4	25 0 0	Angus Club.
XLVI.	1873	Earl of Zetland.	About 40 0 0	1	3	About 40 0 0	Trustees of Earl of Zetland.
XLVII.	1873	The Grierson Trus.	104 0 0	4 1	4 4	20 0 0 26 0 0	Senatus Acad.
XLVIII.	1874	Upper Ward of Lanarkshire.	20 0 0	2	4	20 0 0	Upper Ward Assoc.
XLIX.	1874	Johnstone of Hartshope.	16 5 0	1	4	16 5 0	Senatus Acad.
L.	1874	James Lambert.	About 40 0 0	1	4	About 40 0 0	Senatus Acad.
LI.	1875	Robert Marshall.	32 10 0	1	4	32 10 0	Senatus Acad.
LII.	1876	J. Fothringham of Heathpool.	39 13 0	2	4	19 16 6	Senatus Acad.
LIII.	1877	Earl of Zetland.	About 40 0 0	1	3	40 0 0	Trustees.
LIV.	1878	Edin. E. Lothian Asso.	20 0 0	1	3	20 0 0	Association.
LV.	1878	Edin. University Endowment Asso.	120 0 0	6 3	3	20 0 0 21 0 0	Senatus Academicus. Mr Gillan's Trustees.
LVI.	1878	Jas. Gillan, Forres.	63 0 0	4	4	25 0 0	Trus. of Dr Thomson.
LVII.	1878	Dr Andrew Thomson.	100 0 0			About	
LVIII	1880	Rev. John Patterson.	16 2 4	1	2	16 2 4	Senatus Academicus.
LIX.	1881	Thomas Carlyle.	About £160	8	4	20 0 0	Senatus Acad.
LX.	1883	Subscribers to Mackinnon Testimonial	£60 18 6	3	3	20 6 2	Senatus Acad.
LXI.	1882	James Whitelaw.	71 2 6	3	3	23 14 2	Senatus Acad.
LXII.	1883	William Renton, Edinburgh.	20 0 0	1	1	20 0 0	Profs. Chrystal, Tait, Crum Brown, and Nicholson.
LXIII.	1883	Isabella Macdougall.	About 120 0 0	4	3	About 30 0 0	Trustees.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
LXIV.	1886	Rob. P. Newton of Castlandhill.	£86 19 4	4	2	£21 14 10	Senatus Academicus.
LXV.	1886	Pet. C. Mann of Nairn and Durham.	80 0 0 About	3	3	26 13 4 About	Senatus Academicus.
LXVI.	1886	Richd. Allan, Feuar. Kelso.	90 0 0	3	3	30 0 0	Trustees of R. Allan.
LXVII.	1887	Mrs Kidd of Aigbarth, near Liverpool.	34 0 0 About	1	4	34 0 0 About	Senatus Academicus.
LXVIII.	1887	Charles Jardine of Thorlieshope.	151 10 0 About	4	4	37 17 6 About	Senatus Academicus.
LXIX.	1887	Charles Howatson, Esq. of Dornel and Glenbuck.	27 0 0 About	1	3	27 0 0 About	Trustees.
LXX.	1888	Mrs Harriet E. Morrison.	27 0 0 About	1	4	27 0 0 About	Senatus Academicus.
LXXI.	1889	Daniel Maclaurin, London.	62 10 0 About	1	4	62 10 0	Town Council.
LXXII.	1889	James Simson, Edinburgh.	150 0 0	6	3	25 0 0	Presbytery of Edinburgh.
LXXIII.	1890	George Cousin.	28 0 0	1	3	21 0 0	Senatus Academicus.
LXXIV.	1890	Rev. Thomas Maule.	84 0 0	4	6	21 0 0	Principal, and Profs. of Humanity & Greek.
LXXV.	1891	Donald Fraser, M.D., London, and Endowment Association.	51 0 0	1	1	51 0 0	Senatus Academicus.
LXXVI.	1897	Misses Baxter of Balgavies.	60 0 0	2	3	30 0 0	Senatus Academicus.

CONDITIONS OF FOUNDATIONS AND NAMES OF BURSARS.

I. These *Heriot Bursaries* are for Students unconnected with the Hospital School, entering upon a regular Curriculum in Arts or Science with a view to graduation. (For remodelled scheme, see CALENDAR, 1887-88, p. 498.) *Bursars*—1896, John Tait, Malcolm Campbell, Kenneth M'Lennan, Jas. Brownlee.

Heriot Bursaries for Girls. These Bursaries are for Girls Matriculating for the first time at the University with a view to graduation in Arts or Science, and cannot be held along with any other Bursary or Scholarship. *Bursars*—1896, Bessie K. Hogg, Johanne Thomson, Isa W. Stevenson, Helen S. Neill, Jessie Lees, Williamina Smith, Lizzie Y. Drummond, Margaret S. Cook.

Heriot's Hospital School University Bursaries. These are awarded by competitive examination among Scholars attending the Hospital School, and may be held at any University approved by the Governors. *Bursars*—1896, David Mitchell, Andrew Keay, Alexander Murphy, James Duncan, Thomas A. L. Cairns.

Heriot High School University Bursaries. These are awarded by competitive examination among Scholars attending the High School, Edinburgh, and may be held at any University approved by the Governors. *Bursars*—1896, J. B. Jamieson, Wm. K. Tait, Duncan Christie.

II. *A. Johnston Bursary.*—Each Bursar is entitled to hold this Bursary for four years, subject to the conditions that he shall pass such examination as may be required of Presentation Bursars, and shall proceed through the Curriculum in Arts, and pass the Examinations for M.A. appropriate to each year. No one is permitted to hold the Bursary along with any other Bursary in the University. The Bursar must attend the Classes in the Arts Curriculum.

III. *Trotter and Penman Bursary.* This Bursary is held under the same conditions as No. II.

IV. *Wight, M'Call, and Christie Bursary.* This Bursary is held under the same conditions as No. II.

V. and VI. *R. Johnstone Bursaries.*—By Ordinance No. 82, the holder of each of the four Robert Johnstone Bursaries is entitled to hold his Bursary for four years, subject to the condition that he shall pass the Preliminary Examination or its equivalent, and shall proceed through the Curriculum in Arts, and regularly pass the Examinations required of Students proceeding to the degree of M.A. No person is allowed to hold any of these Bursaries along with any other Bursary in the University. Agents, Messrs Hope, Todd & Kirk, W.S., 119 Princes Street, Edinburgh. *Bursar*—

VII. *Weir, Jenkins, Hepburn, and Lightbody Bursary.*—For a Student in Arts, who must pass the Preliminary Examination or its equivalent, and follow the Curriculum for the Degree of M.A.

VIII. The *Dalgliesh and Macmorran* Bursar must pass the Preliminary Examination or its equivalent, and proceed through the Curriculum in Arts in the University, and regularly pass the Examinations required of Students proceeding to the Degree of M.A.

IX. *Penman Bursary.*—The Bursar must attend the Classes in the Arts Curriculum.

X. Each *Ford* Bursar is entitled to hold his Bursary for four years, subject to the condition that he shall pass the Preliminary Examination or its equivalent, and shall proceed through the Curriculum in Arts, and regularly pass the Examinations required of Students proceeding to the Degree of M.A. No person is permitted to hold any of the Bursaries along with any other Bursary in the University.

XI. The *Sir A. Ramsay* Bursar holds his Bursary for four years, subject to the condition that he shall pass the Preliminary Examination or its equivalent, and shall proceed through the Curriculum in Arts, and regularly pass the Examinations required of Students proceeding to the degree of M.A. No person is permitted to hold either of the Bursaries along with any other Bursary, Fellowship, or Scholarship of any Scottish University.

XII. The *Chrystie Bursary* is usually held for four years. Candidates must pass the Preliminary Examination or its equivalent. The Bursar is taken bound to attend "the usual classes," and must produce yearly to the Faculty certificates from the respective Professors of his due attendance, and the diligent prosecution of his studies. Candidates are referred for information to the Clerk to the Faculty of Advocates, Advocates' Library.

XIII. The *Bryson* Bursars must pass the Preliminary Examination or its equivalent, and are first to enter the Humanity class: afterwards to pass through

the rest of the classes in Arts until their Laureation; at which time, if judged by the ministers of the Presbytery of Dunbar fit for the study of Theology, they may continue for two years in Theology.

XIV. The *Pringle and Wardrop Bursary.*—The Bursar must pass the Preliminary Examination or its equivalent, and attend the classes in the Curriculum in Arts for M.A.

XV. The *Brown Bursaries* are payable to Bursars who must pass the Preliminary Examination or its equivalent, and attend the regular course of study in Arts for M.A.

XVI. The *Mitchell and Shortt Bursary* is payable to a Student who must pass the Preliminary Examination or its equivalent, during the regular course in the Faculty of Arts.

XVII. *Dundas Bursaries.*—By Ordinance No. 78 of the Universities' Commissioners, each person presented to either of the Dundas Bursaries is entitled to hold the same for four years as a Student of Arts, subject to the conditions that he shall pass the Preliminary Eamination or its equivalent, and proceed through the Curriculum in Arts, and shall regularly pass the Examinations required for M A. These Bursaries cannot be held with any other Bursary in the University.

XVIII. The *Fraser Bursaries.*—Bursars must pass the Preliminary Examination or its equivalent, and proceed through the curriculum till they finish their course and take the Degree in the Faculty of Arts. The Bursaries are held for three years thereafter; the Bursars making their election whether to follow Divinity, Law, or Medicine. Two Classes at least must be attended each Winter Session. Candidates should apply to the City Clerk, Council Chambers, Edinburgh.

XIX. The conditions of the *Hume Mortification* correspond with those of Bryson's, No. XIII., and the presentations and payments are made as in that case.

XX. *Millar Bursary.*—To be held by a Student intended for the Ministry in the Church of Scotland, during his Curriculum in the Faculty of Arts. Bursar must pass the Preliminary Examination or its equivalent.

XXI. The *Grant Mortification.* Tenable in the Faculties of Arts, Divinity, Law, or Medicine. Application for information may be made to Messrs Mackenzie, Innes, & Logan, W.S., 23 Queen Street, Edinburgh. *Bursars*—1894, Alexander Grant, Donald Grant.

XXII. *Stuart Bursaries.*—Open to Students entering upon the second year of their course for graduation in Arts or in Pure Science. The said Bursaries shall be tenable for three years, provided that if the holders graduate at the end of their second year of tenure they shall only retain their Bursaries during the third year of tenure if they engage in a course of study approved by the Senatus Academicus in subjects included in the Curriculum for Degrees in Arts or in Pure Science. *Bursars*—1894, Alexander Brown; 1895, D. H. Macgregor; 1896, J. M. Dunnett.

XXIII. *Menzies.*—These Bursaries, four in number, were founded in 1837 by James Menzies, Esq., Glasgow. They are of the annual value of £45 each, but vary in amount at discretion of the patrons, and tenable for four years, in any one

of the Universities of St Andrews, Glasgow, or Edinburgh. Preference first to the relations of the Founder; next, to the name of Menzies; failing whom, to persons born on the estate of Sir Robert Menzies, Bart., within the parishes of Dull, Weem, and Fortingall; failing whom, any Student who shall be found best qualified may be appointed. Candidates must pass the Preliminary Examination.

XXIV. *The Dow Bursaries* are tenable for four years, "at any of the Scottish Universities, St Andrews in preference." Apply to the Patrons.

XXV. The *Blair* Bursar must pass the Preliminary Examination, attend the Classes, and pass the Examinations necessary for the Degree of M.A. *Bursar*—1895, A. A. Fraser.

XXVI. The *Jamieson Bursary* is for the benefit of the sons of schoolmasters, farmers, mechanics, and labourers, born and residing within any one of the following parishes—viz., Crawfordjohn, Crawford, united parishes of Lamington and Wandell, united parishes of Wiston and Roberton, Culter and Biggar. The Bursar must pass the Preliminary Examination or its equivalent. He may attend Classes in any of the Faculties. *Bursar*—1893, G. C. Rankin.

XXVII. Called the "*Jardine Bursary*," being founded by Mr Bidder, C.E., as a memorial of the munificence of Sir Henry Jardine to him, to which he owed the advantage of his education at the University of Edinburgh. Candidates must be natives of Scotland. The Bursar must pass the Preliminary Examination or its equivalent, and attend the Classes, and pass the Examinations necessary for the Degree in Arts. *Bursar*—1896, Alexander Thomson.

XXVIII. *Lennie Bursaries.*—Bursars must pass the Preliminary Examination or its equivalent, and attend the Classes in the Arts Curriculum. Candidates should apply to the City Clerk, Council Chambers, Edinburgh.

XXIX. *Bruce Bursaries.*—Prior to the commencement of each Winter Session, five Students are presented yearly, the most distinguished of the five receiving the £40 Bursary. The Bursars must be in regular attendance on the Classes necessary for the Degree of Master of Arts. Candidates announce their names at the Council Chambers to the City Clerk.

XXX. The *M'Diarmid Bursary* is a memorial of the late John M'Diarmid, Esq., Editor of the *Dumfries and Galloway Courier*. Candidates must be natives of the county of Dumfries or the stewartry of Kirkcudbright. The Bursar must pass the Preliminary Examination and attend the Classes and Examinations necessary for the Degree of Master of Arts. Applications regarding the Bursary to be made to "H. Gordon, Esq., Dumfries." *Bursar*—1895, J Nivison.

XXXI. The *Patrick Bursaries* are for the assistance of those who have completed a course of education at any of the public schools or academies in the county of Ayr, where a course of Classical Study is pursued. Their value fluctuates, being the dividend on £3000 Glasgow and South-Western Railway Stock. The Bursars must attend the Classes and pass the Examinations necessary for the Degree in Arts, in the order required by the Faculty. *See* p. 197 of CALENDAR for 1865-66. *Bursars*—1894, James M. Dunnett, John Millar. 1896—G. O. Dunnett, James Girdwood, William Legat.

XXXII. *Ayrshire Club Bursaries.*—Awarded after competitive examination to natives of Ayrshire requiring aid, and tenable during the Curriculum in Arts, on condition of regular attendance at the Classes, with a view to the Degree. Infor-

mation will be afforded by the Secretary of the Club, Mr Andrew White, W.S., 23 Castle Street.

XXXIII. *Peeblesshire Bursary.*—Open to Candidates of either sex who intend to pursue the Curriculum in Arts, Science or Medicine. Apply to the Secretary of the Society, Mr P. H. Cosens, W.S., 17 Duke Street, Edinburgh. *Bursar*—1896, James Robert Lindsay.

XXXIV. and XXXV. *Caithness and Rhind Bursaries.*—Bursars must attend Classes in Arts Curriculum. Apply to Secretary of the Association.

XXXVI. *Bruce of Grangehill and Falkland's Bursaries.*—Three of these Bursaries, of the annual value of £35, are awarded after competitive examination to Students of the *second* year in their course of study for a Degree in Arts; and three others, of the annual value of £20, to Students entering the *first* year of the Arts Curriculum. *Bursars*—First year, 1894, J. S. Wilson; 1895, J. W. Meldrum; 1896, H. J. Anderson; second year, 1896, J. S. Ross.

XXXVII. *Horsliehill-Scott Bursaries.*—Annual value £33, 6s. 2d., under deduction of £6, 6s. for Examiners' fees from first year's payments. Open to Students in the *third* year of their course for a Degree in Arts, and tenable for two years. The examination is in Classics, Mathematics, and Logic and Metaphysics. Deed of Foundation, at p. 208 of CALENDAR for 1866-67. *Bursars*—1895, C. M. Campbell; 1896, Alexander Flint.

XXXVIII. The *Harrison Bursary* is of the annual value of £33, 5s., under deduction of £6, 6s. of Examiners' fees from first year's payments. Open to Students in the *third* year of their course in the Faculty of Arts, with a view to a degree, and tenable for two years. It is to be awarded to the competitor who shall shew the greatest proficiency in Classics, Mathematics, and Logic and Metaphysics. *See* Deed of Endowment, p. 231 of CALENDAR for 1867-68. *Bursar*—1895, S. G. Campbell.

XXXIX. *Spence Bursaries.*—By the regulations of the Governors, two Bursaries, each of the annual value of £30 for the first year and £40 for second year of tenure, are open only to Students who have studied in the University of Edinburgh, at the commencement of their second session in a three years' curriculum, or of their third session in a curriculum of four years. Examination in Latin, Greek, and Mathematics. Governors may award to any Bursar who has graduated or passed all the examinations for a Degree in Arts, a Bursary of £50 for one year, tenable in any of the other Faculties. See Scheme, p. 520 of CALENDAR 1889-90. Candidates apply to Mr Henry A. Patullo, Solicitor, Bank Street, Dundee, Factor to the Trust, for particulars.

XL. *Border Counties and Sir Walter Scott Bursaries.*—These Bursaries are open to competition by Scholars (women as well as men) who have attended any school in either of the Counties of Roxburgh, Berwick, Selkirk, or Borough of Berwick-on-Tweed, for two complete sessions immediately prior to the time of their examination for the Bursaries. The Bursars must attend the classes necessary for a Degree in Arts. Application to be made to Mr T. Usher, Sheriff Court House, Edinburgh. *Sir W. Scott Bursar*—1889, John Henderson. *Border Counties Bursar*—1891, John K. Graham.

XLI. *Argyllshire Bursary.*—Candidates must be natives of Argyll-

shire, Bute, or Western Islands. The holder must attend the classes necessary for a Degree in Arts. Application to be made to John Maclachlan, Esq., W.S., 48 Castle Street, Edinburgh.

XLII. *Ardvorlich Bursary.*—Open to Students of Arts, natives of the parishes of Comrie, Balquhidder, Callander, or Killin, failing whom, to natives of Perthshire, and failing such, to the best qualified candidate. The holder must pass the Preliminary Examination or its equivalent, and must attend Arts or Science classes. Application to be made to the Clerk of Senatus. For remodelled Foundation, see CALENDAR 1887-88, p. 501; for original deed, see p. 275 of CALENDAR for 1870-71. *Bursar*—1894, E. R. J. Stevenson.

XLIII. *Cowan Bursary.*—Candidates must be about to enter the Curriculum in Arts. Annual value for first two years £30, and £20 for third year, to be held alternately at Edinburgh and Glasgow Universities. Information will be afforded by J. G. M'Skimming, Esq., Ayr.

XLIV. *Sibbald Bursaries.*—The Bursaries are available to Students in the Faculties of Arts, Medicine, Law, or Divinity, and are open to Students entering the University who have not previously attended any University in the United Kingdom or elsewhere, *and who do not hold any other Bursary or Scholarship*; but no objection to a Candidate that he has, during the previous Summer Session, attended any of the Classes in the University of Edinburgh required by the Faculties of Medicine or Law. *See* CALENDAR for 1888-89, pp. 171 and 177. Application to be made to Messrs Mackenzie, Innes, & Logan, W.S., 23 Queen Street, Edinburgh. *Bursars*—1892, William Eggeling, Donald Banks, William Porter; 1895, R. C. S. Keith.

XLV. *The Angus Club Bursary.*—Open to Forfarshire students entering the University for the first time. Application should be made to the Secretary of the Club, Mr William Whyte, S.S.C., 4 Albyn Place.

XLVI. *Orkney and Zetland Bursary.*—Open to first year Students (male or female), natives, or children of parents who are natives of the County of Orkney and Zetland. It is tenable for three years. The Bursar must attend the Classes in the Curriculum in Arts, with a view to a Degree. Applications to be sent to Messrs Dundas & Wilson, C.S., 17 St Andrew Square, Edinburgh. The Deed of Foundation will be found in CALENDAR for 1873-74, p. 329. *Bursar*—1895, J. S. Ross.

XLVII. *Grierson Bursaries.*—Four Bursaries of £20 each, and one of £24, awarded annually in November, under the patronage of the Senatus. They are restricted in the first place to natives of either of the parishes of Crawford or Leadhills, who must pass an examination, satisfactory to the Senatus, in Elementary Latin, English, and Arithmetic. In the event of more than one preferential Candidate, the examination is competitive among such candidates. If no preferential Candidates, the Bursaries are thrown open for competition to all Students then intending to enrol in the University for the First Session of the Curriculum in Arts, the subjects of examination being those prescribed for Bursars of the First Year. *See* Trust Disposition of Founder at p. 335 of CALENDAR for 1873-74, and p. 308 of the CALENDAR for 1877-78. *Bursars*—1893, William A. Curtis, James Lornie; 1894, T. W. Stewart (Preferential Candidate), A. J. Black (for two years); 1895, James Crerar, J. S. Ross.

XLVIII. *Lanarkshire* (Upper Ward of) *Bursaries.*—Bursars must attend the Classes in the Arts Curriculum. Mr R. Brown, Secretary, 28 St Andrew Square. *Bursar*—

XLIX. *Johnstone of Harthope Bursary.* Natives of Moffat, Peebles, and Students of the name of Alexander or Johnstone preferred, if applications (with proof of birth) be made to Secretary of Senatus before 1st of September. The successful candidate must attend the Classes in the Faculty of Arts, and take the Degree of M.A. *See* Deed of Foundation, at p. 350 of CALENDAR for 1875-76. *Bursar*—1895, D. D. Paton.

L. *Lambert Bursary.*—This Bursary cannot be instituted until after the death of an annuitant. *See* Deed of Foundation, at p. 342 of CALENDAR for 1875-76.

LI. *Marshall Bursary.*—Restricted in the first place to relatives of Founder, next to Students of the name of Marshall, and natives of West Lothian. *See* Deed of Foundation, at p. 347 of CALENDAR for 1876-77. *Bursar*—1896, J. M. Marshall.

LII. *Fothringham and Forrest Bursaries.* Relatives or namesakes of the Founder, then such as are of the name of Forrest, to be preferred. The successful candidate must attend the Classes in the Faculty of Arts, and take the Degree of M.A. *Bursar*—1893, Charles Macfie Campbell; 1894, Donald Banks.

LIII. *Earl of Zetland's Bursaries.*—These Bursaries are open to First Year Students in the Faculty of Arts, who are natives of the Islands or County of Orkney and Zetland, or children of parents, one or both of whom shall have been born in or connected for a long period of years with the said Islands or County. For Deed of Foundation of these Bursaries, *see* p. 373 of CALENDAR for 1877-78. Application to be made to Messrs Dundas & Wilson, C.S., 17 St Andrew Square, Edinburgh.

LIV. *Edinburgh East Lothian Association's Bursary.*—The Bursary may be competed for by any lad under the age of 18, who has been educated at any school in East Lothian, or who, having passed through all the standards or their equivalents at such schools, shall have afterwards attended for not more than three sessions any secondary school within or without the county. Application may be made to J. Purves, S.S.C., 65 Frederick Street.

LV. *Edinburgh University Endowment Association's Bursaries* are open to Students entering the Faculty of Arts for the first time, and tenable for three years. Bursars must proceed through the Curriculum in Arts, and pass the Examinations for the Degree of M.A. Lapsed Bursaries may be awarded for one year to Students of the first or any year, whose merits have been attested in the usual Bursary Examination of their year. Cannot be held with any other Bursary in any Scottish University. *See* Minute of the Endowment Association, p. 375 of CALENDAR for 1878-79. *Bursars*—1894, Herbert Smiles; 1895, J. H. Imrie, H. F. Eggeling, W. N. Walsh; 1896, John M'Rae, W. S. Colville.

LVI. *Gillan Bursaries.*—Founded in 1878 by James Gillan, draper, Forres. These Bursaries are for the support at the University, and at the New College, Edinburgh, of two young men connected with the parish of Forres, and one connected with Dyke, who have declared their intention to study for the ministry of the Free Church of Scotland. For particulars apply to Messrs R. & R. Urquhart, Solicitors, Forres.

LVII. *Thomson Bursaries.*—Candidates of the name of Thomson or Traquair,

or natives of town or county of Dumfries or city of Edinburgh, preferred. *See* Deed of Foundation, p. 367 of CALENDAR, 1877-78, and Scheme of Allocation, p. 346 of CALENDAR, 1879-80. Applications to be made to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street. *Bursars*—1892, Robert Gray; 1893, Allan W. C. Menzies; 1894, Victor Caldwell; 1895, H. C. Liddell.

LVIII. *Patterson Bursary, in Anglo-Saxon, Grammar, and Literature.*—Open to Students in the second, third, or fourth year of their Matriculation who have attended the class of English Literature and the Honours Course in English Language, both in the University. The Examination will include Anglo-Saxon, Grammar, Translations of passages of Anglo-Saxon prose and verse, and the History of Anglo-Saxon Literature. *See* Deed of Foundation at p. 379 of CALENDAR for 1880-81. *Bursar*—1896, G. Dundas Craig.

LIX. *John Welsh Bursaries*, founded by Thomas Carlyle in 1881, in memory of his Father-in-law, to whom the estate of Craigenputtock in Dumfriesshire, bequeathed by Mr Carlyle to the University of Edinburgh, formerly belonged. The Bursaries are paid from the rents of that estate, and are eight in number, of the value of about £20 each, tenable for four years. They are awarded, after competition, to Students entering the University, who have not studied in any other University. Four are to be given to the competitors most proficient in Mathematics, and four to those most proficient in Classics. They are not to be held with any other Bursary. *See* Deed of Foundation at p. 379 of CALENDAR for 1881-82. *Bursars*—(*Classical*)—1894, David L. Norrie, J. H. Cattanach, B. H. Richardson, C. G. Mackay. (*Mathematical*)—1892, William Dick, A. M. Anderson; 1895, R. H. Macnair, Alexander Waddell.

LX. *Mackinnon Bursaries.*—Three Bursaries about £20, 6s. 2d., tenable for three years, to encourage the study of the Mechanical Sciences. Each Bursary is open for competition to Students entering their First Session in the Faculty of Arts. Candidates must be natives of the counties of Argyll, Bute and Arran, Inverness, Ross or Sutherland, and must be able to speak the Gaelic language. The Examination is held at the annual competition for Bursaries at the beginning of each Session, with an additional examination by the Professor of Celtic; at least 10 per cent. of the total marks attainable being assigned to Gaelic. Each Bursar is bound to attend at least two classes in the Faculty of Arts during his tenure, and among these six classes, at least one class of Mathematics, one of Natural Philosophy, and the class of Engineering. The Bursaries cannot be held along with any other Bursary, Scholarship, or Fellowship in a Scottish University, or with any office yielding an annual income of £50 or upwards, and is tenable only during good behaviour and proficiency. *Bursars*—1895, J. M. Lamont; 1896, John M'Nab.

LXI. *Whitelaw Bursaries.* — In memory of James Whitelaw, Watchmaker. Three Bursaries, about £23, 14s. 2d. each, tenable for three years, open to Students about to enter, or who follow the Curriculum in Arts. Cannot be held along with any other Bursary, Scholarship, or Fellowship in a Scottish University, or with any office yielding £50 annually, or upwards. Examination in October annually. *Bursars*—1895, T. B. Copeland; 1896, Thomas Davidson.

LXII. The *Renton Bursary*, founded by the Trustees of the late William Renton, 20 Royal Terrace, Edinburgh, is for a Student pursuing his studies

in the classes of Natural Philosophy, Mathematics, Chemistry, and Political Economy, or such of them as he may consider proper, and who may require assistance. The Bursary is tenable for one year, and cannot be held by any one under the age of sixteen or above twenty-one. *Bursar*—1896, William C. Douglas.

LXIII. The *Macdougall Bursaries* are open to Students of Edinburgh, Glasgow, and St Andrews Universities. Students attending the Gaelic Class to be preferred. The Bursaries cannot be held with any Bursary or appointment yielding upwards of £50 per annum. *See* Deed of Foundation at p. 435 of CALENDAR 1885-86. Application may be made to Mr W. C. Young, solicitor, Perth.

LXIV. *Newton Bursaries.* –Two are awarded annually, one to the most distinguished Student in the Junior Class of Natural Philosophy, and one in the Senior (Second) Class of Mathematics. The Bursaries are tenable for two years, and the Bursars must continue their studies in the higher branches of the subjects of their Bursaries, and at the end of the second year of tenure, either take Honours in Mathematics and Natural Philosophy, pass the 2nd B.Sc. Examination, or give other evidence of advanced study in Mathematics or Natural Philosophy. These Bursaries are not to be held with other Scholarships or Bursaries. *See* Deed of Foundation, p. 460 of CALENDAR, 1886-87. *Bursars* (*Math.*)—1896, Robert Horn; 1897, *J. M. Dunnet.* (*Nat. Phil.*)—1896, *R. L. Wilson;* 1897, *S. F. Stewart.*

LXV. *Mann Bursaries.*—(1.) Candidates must be children of residents in the town of Nairn, *i.e.*, one or both parents must have resided within the municipal boundaries for at least twelve months at any period prior to the competition. (2.) Applications must be lodged with the Clerk of Senatus at least three weeks before the Annual Bursary Examination of the University, along with evidence of compliance with Rule I. (3.) One will be awarded annually to the candidate, matriculating for the first time in this University, who obtains the highest marks at the Entrance Bursary Examination in English, Latin, Greek, and Mathematics, provided the Examiners be satisfied with the standard he has attained. (4.) Each will be tenable for three years, value about £25 per annum. (5.) Failing candidates of the first year, the vacant Bursary will be awarded as a second year Bursary to the candidate who obtains the highest marks in the Bursary Examination for the second year; and, failing candidates of the first and second years, it will similarly be awarded as a third year Bursary. When awarded under this Rule it is tenable for one year only. (6.) Failing candidates qualified under Rule III. or Rule V., the Senatus may continue one of the Bursaries to its holder for a fourth year, provided he propose to continue his studies for a fourth year in some special subject. (7.) Each Bursar must be *bona fide* engaged in studying for a Degree in Arts or in Science, and must produce evidence at the end of each Winter Session that he has attended at least two classes in the Faculty of Arts, or in a Department of Science, and has made reasonable progress in his studies. (8.) Any breach of these regulations, or conduct unworthy of a scholar and a gentleman, will be punished by forfeiture of the Bursary. *See* Deed of Foundation, p. 497 of CALENDAR 1887-88, and Regulations at p. 544 of CALENDAR for 1890-91. *Bursar*—1893, John Matheson; 1896, Hugh Winchester.

LXVI. *Allan Bursaries.*—These Bursaries are available to Students attending classes in any of the Faculties of Arts, Medicine, or Law, in the University of Edinburgh, or to Students attending the classes in said University necessary for Degrees in Science; and are tenable for three years or for such part of that period as the Bursar shall remain a Student at the University. In nominating Candidates for presentation to the Bursaries, care will be given to prefer such as have been born in the parish of Kelso, provided they are qualified by their previous education for entering the University. Apply to P. Stormonth Darling, Esq., writer, Kelso.

LXVII. *James Fairbairn Bursary*, founded by Mrs Kidd of Palmyra, Aigbarth, near Liverpool, in memory of James Fairbairn, late Governor of Heriot's Hospital, is open to competition to first year Students, and is tenable for four years. The Bursar is required to attend the Classes necessary for Graduation in Arts, and to take the Degree at the end of the Course. The Bursary cannot be held along with any other Bursary or Scholarship. *See* Deed of Foundation, p. 501 of CALENDAR, 1887-88. *Bursar*—1893, Peter Thomsen.

LXVIII. *Jardine of Thorlieshope Bursaries.*—Natives of the rural districts of Roxburghshire and Dumfriesshire (villages and towns of the population of 2000 and upwards being excluded), who have attended the Public or Board Schools in said counties, to be preferred. In the event of there being no first year Candidates, the Bursaries will be thrown open to Candidates of the second, third, or fourth year in succession, but will be tenable for one year only. The Bursars are required to attend the Classes necessary for Graduation in Arts, and to take the Degree at the end of the Course. The Bursaries cannot be held along with any other Bursary or Scholarship. See Deed of Foundation, p. 497 of CALENDAR, 1887-88. *Bursars*—1894, John Pattison, Arch. S. Ballantyne; 1895, Walter Davidson; 1896, J. P. M'Gowan.

LXIX. *The Glenbuck Bursary* may be held by a Student in any of the four Scotch Universities—preferably that of Glasgow or of Edinburgh. Candidates only are eligible who have resided not less than five years in the Parish of Muirkirk, and who have received part of their education at any school therein, or alternatively and postponed thereto, those who have been resident in any one of the Parishes of South Ayrshire for not less than five years, and who have received part of their education in any school in the same Parish. For urther particulars, apply to R. A. Leslie, Inspector, Muirkirk.

LXX. *MacKenzie* (*Stornoway*) *Bursary.* — Candidates of the name of MacKenzie have a preference. The Examination is in English, Latin, Greek, and Mathematics, as for First Session Open Bursaries, and the Bursary will be awarded to the Candidate who stands highest, provided he has passed the Preliminary Examination in at least two subjects, one of which must be Latin, Greek, or Mathematics on the Higher Standard. Failing a preferential Candidate, the Bursary will be thrown open to competition as a first year Bursary in Arts. The Bursar is required to attend the Classes necessary for Graduation in Arts, and to take the Degree at the end of the course. For Regulations, *see* CALENDAR for 1895-96, p. 748. *Bursar*—1896, William Mackenzie.

LXXI. This Bursary, tenable for four years, is by the will of the founder to be called the "Maclaurin Bursary," and is restricted to Students of the Founder's name of Maclaurin (or in Gaelic orthography "Maclalhrin"). The holder must pass the Preliminary Examination. It may be held in any of the Faculties. *See* Deed of Foundation, p. 544 of CALENDAR for 1890-91.

LXXII. Six Bursaries, each of the annual value of £25, and tenable for three years in the Faculty of Arts. They are open to Students who, having passed the Preliminary Examination, are entering on the first year of the Course in Arts, and are studying for the Ministry of the Church of Scotland. For conditions of tenure and subjects of examination, apply to the Rev. Dr Langwill, Currie, or to Rev. Dr Patrick, Greenside, Edinburgh. *Bursars*—1894, Thomas J. Barnett, Henry Duncan, W. MacKean; 1895, W. Murdie, G. H. Donald; 1896, D. H. Sawers, D. Heggie.

LXXIII. *Bailie Cousin's Bursary* is open for competition to Students entering the Faculty of Arts on a regular course for the Degree of M.A. The holder must regularly pass the departmental examinations appropriate to each year. The Bursary cannot be held along with any Fellowship, Scholarship, or Bursary of any Scottish University, or with any situation or appointment yielding an annual income of £30 or upwards. For Deed of Foundation *see* CALENDAR 1891-92, page 536. *Bursar*—1894, William Dunbar.

LXXIV. *Maule Bursaries.*—These Bursaries are for the education of poor and deserving Students. They may be held by Students prosecuting their studies in any of the Faculties. The Examination is in Latin, Greek, Mathematics, and English for preferential Candidates. *See* Excerpt from Trust Deed, p. 543 of CALENDAR for 1891-92, and Deed of Foundation, in CALENDAR for 1894-95. *Bursars*—1894, David Robertson (six years), Donald J. Boyd (five years), Richard H. Moar (four years), W. A. G. Fallas (three years).

LXXV. *The Donald Fraser Bursary* is awarded for high merit in the University Class of Natural Philosophy, combined with proficiency in Laboratory Work. The Bursar is required to give assistance in the University Physical Laboratory, and to engage in research there. The Bursary cannot be held along with any other Fellowship, Scholarship, or Bursary in any Scottish University. *See* Deed of Foundation, p. 545 of CALENDAR for 1891-92. *Bursar*—1897, *G. T. Davison.*

LXXVI. These Bursaries are open both to men and women who have been educated in the High School of Dundee for at least one year immediately preceding the competition. The subjects of Examination, and the values attached to each subject, are the same as for the Open Bursaries in Arts, with the omission of Italian, and the addition of Chemistry (full marks, 50), as a subject of Examination. Candidates may select not more than five subjects, and the successful candidates may study for the Degrees of M.A., B.Sc., B.L., LL.B., or M.B., Ch.B.

The successful candidates must have passed the Preliminary Examination in Arts or Science, or its equivalent. For Regulations, *see* page 429 of CALENDAR for 1897-98.

II.—PRIZES.

I.—THE LORD RECTOR'S PRIZE.

The Lord Rectors since 1879, during their respective tenures of office, have offered a Prize of Twenty-five Guineas annually, for the best Essay on a Historical Subject.

1896. Not awarded.

II.—EDINBURGH UNIVERSITY CLUB (OF LONDON) TRIENNIAL PRIZE.

A Prize of Twenty Guineas, open triennially, for competition in any of the Faculties by Graduates of not more than two years' standing, is offered by the Edinburgh University Club of London, for the best Essay on a subject prescribed by the Deans of the Faculties in the following rotation (viz., Arts, Divinity, Law, Medicine, and Science), subject to the approval of the Senatus. The Prize will be open in 1897.

1895. *Robert Hutchison, M.B.C.M.*

III.—BRUCE OF GRANGEHILL AND FALKLAND'S PRIZE IN THE CLASSES OF LOGIC AND METAPHYSICS.

This Prize of £20 (with a supplementary Prize of £10 for the Junior Division of the Class) is awarded to the most distinguished student in this class, "on such conditions and competition as the Professor may direct, and on his decision," for excellence in the study of Logic and Metaphysics. It was founded in 1865, by Mrs Tyndall Bruce of Grangehill and Falkland, in commemoration of John Bruce, Professor of Logic and Metaphysics in the University, 1774-1786.

1897. *G. Claus Rankin, M.A.*

IV.—GRAY PRIZES.

The Gray Prize Essay Fund was instituted in 1851, in terms of the Will of Simon Gray, Esq., of Mornington Crescent, London. The Trustees offer annually for competition, two prizes of £20 for the first, and £10 for the second best Essay on a subject to be intimated annually under Prizes open for the year. For particulars apply to the Rev. A. J. B. Paterson, Duns, Secretary to the Trustees.

1896. 1st Prize, *David H. MacGregor.*
2nd Prize, *James M. Hogge.*

V.—DR MUIR'S PRIZES IN SANSKRIT AND COMPARATIVE PHILOLOGY.

In accordance with the intentions of the late Dr John Muir, and with the concurrence of Sir William Muir, the sum of £100, offered by Dr Muir in 1872 as a prize to the first candidate who should take the

degree of Doctor of Science in Sanskrit and Comparative Philology within five years,—afterwards renewed, on the same terms, for another period of five years,—has now, together with the interest, been appropriated by the Senatus for Sanskrit and Comparative Philology Class Prizes. It is left to the discretion of the Professor to offer Class Prizes, not exceeding £25 in the aggregate, for competition.

1897. *James Elmsley Wood.*

VI.—SCOTT AND DUNBAR PRIZE.

This Prize, of the value of about £20, was founded in 1872 by the Rev. Hew Scott, D.D., of Anstruther Wester, for encouraging the study of the Greek Language in the University of Edinburgh. It is awarded annually to "the most deserving and learned student in the Greek Classes," after such Examination as may be directed by the Principal and the Professors of Divinity, Greek, and Humanity. *See* Deed of Foundation at p. 332 of CALENDAR, 1873-74.

1897. *William Rennie.*

VII.—THE COUSIN PRIZE.

This Prize, founded in connection with the Class of Fine Art by the late David Cousin, Esq., is of the annual value of about £14, 14s. 6d., and is awarded at the close of each session for proficiency in Class Essays set from time to time by the Professor. *See* Excerpt from Mr Cousin's will in CALENDAR, 1880-81, p. 380.

1897. *Henry C. Liddell.*

VIII.—KELLAND MEMORIAL PRIZE.

The Committee for promoting a Memorial to the late Professor Kelland has handed over to the University the sum of £147, 10s., for the purpose of founding a Prize to be called the "Kelland Memorial Prize," to be awarded annually to the most distinguished Student in Pure Geometry in the Junior Mathematics Class. The value of the Prize is about £4, 12s.

1896. *Archibald Milne.*

III.—SCHOLARSHIPS.

I.—PITT CLUB CLASSICAL SCHOLARSHIP.

The Pitt Club Scholarship of the annual value of £58, 10s., tenable for four years. By ordinance No. 17 of the Scottish Universities' Commissioners of 1858 it is open for competition to all who have passed regularly through the Course in Arts in the University, and have been admitted to the Degree of M.A. in Edinburgh, at any time within four years before the competition takes place. The subjects embraced in the examination are CLASSICS and ENGLISH LITERATURE. The next competition may take place in April 1901.

1897. *A. Croom Paterson, M.A.*

II.—MACKENZIE CLASSICAL SCHOLARSHIP.

This Scholarship was founded in 1862, by James Mackenzie, Esq., W.S., and is of the annual value of £106, 8s., tenable for four years. By ordinance No. 90 of the Scottish Universities' Commissioners of 1858, it is open for competition to all Graduates in Arts in the University of Edinburgh of not more than three years' standing at the time of the competition. Candidates are examined in CLASSICAL LITERATURE and in ENGLISH LITERATURE, and the Examination is conducted by three or more Examiners selected by the Senatus from their own body. It cannot be held along with any other Scholarship, Fellowship, or Bursary, of any Scottish University. The Examinations include—1. Translations from Latin and Greek authors; 2. Composition in Latin and Greek Prose; 3. Latin and Greek Literature, and History; 4. English Essay-Writing; 5. History of English Literature. The next competition may take place in April 1901.

1897. *William Wallace M'Kechnie, M.A.*

III.—SIR DAVID BAXTER MATHEMATICAL SCHOLARSHIP.

This Scholarship, founded by Sir David Baxter, Bart., of Kilmaron, is of the annual value of £63, 13s., and is tenable for four years. By the terms of the Deed of Foundation (given in the CALENDAR for 1864-65, p. 171) it is awarded for proficiency in the department of Mathematics, particularly in that branch of it which includes mechanical and physical science. Competitors must be Graduates in Arts of the University, of not more than four years' standing at the time of the competition, who have taken Honours in the department of Mathematics. The next competition may take place in April 1900.

1896. *Malcolm C. M'Alpin, M.A.*

IV.—SIR DAVID BAXTER PHILOSOPHICAL SCHOLARSHIP.

This Scholarship, also founded by Sir David Baxter, Bart., of Kilmaron, is of the annual value of £63, 13s., and is tenable for four years. By the terms of the Deed of Foundation (given in the CALENDAR for 1864-65, p. 171), it is awarded for proficiency in the Department of Mental Philosophy. Competitors must be Graduates in Arts of the University, of not more than four years' standing at the time of the competition, who have taken Honours in the department of Mental Philosophy. The subjects of examination are Logic, Metaphysics, and Moral Philosophy. The next competition may take place in April 1899.

1895. *J. B. Baillie, M.A.*

V.-VII.—JOHN EDWARD BAXTER SCHOLARSHIPS.

These Scholarships were founded in 1876, and are three in number, each of the annual value of about £83, 17s. 6d., and tenable for three

years. One is in the Department of Classical Literature, another in Mental Philosophy, and the third in Mathematics and Natural Philosophy. They are open for competition to all Masters of Arts of the University of not more than three years' standing at the time of the competition. The Scholarships in *Mathematics* and in *Classics* may be open in April 1899, and that in Mental Philosophy may be open in April 1900. *See* Deed of Foundation at p. 361 of CALENDAR for 1877-78.

1897. *John Macaskill, M.A.* (*Ph*).

VIII.—DRUMMOND MATHEMATICAL SCHOLARSHIP.

This Scholarship was founded in 1865 by Miss Elizabeth Drummond, in memory of her brother, Captain Drummond, R.E., Under Secretary for Ireland. It is of the annual value of £92, 7s. 6d., and is tenable for three years. By the Deed of Foundation (given at p. 198 of CALENDAR for 1865-66), it is open to Graduates in Arts of not more than three years' standing, who have graduated with Honours in the Department of Mathematics. It cannot be held with any other Bursary or Scholarship, and the holder is recommended to travel for the purpose of inspecting, in this and other countries, remarkable engineering and architectural structures, to extend his knowledge of the practical application of Mathematical principles; and, if required by the Senatus Academicus, to deliver reports on the principal structures examined by him, and the Mathematical principles exemplified thereby; which reports the Senatus may cause to be publicly read in the University or elsewhere in Edinburgh. The next competition may take place in April 1900.

1897. *John Alexander Johnston, M.A.*
Prox. access., M. C. M'Alpine, M.A., and J. F. Cameron, M.A.

IX.—BRUCE OF GRANGEHILL AND FALKLAND'S CLASSICAL SCHOLARSHIP.

This Scholarship, founded in 1865 by Mrs Tyndall Bruce of Falkland, is of the annual value of £100, and is tenable for three years, during two of which the studies of the Scholar must be prosecuted in the University of Edinburgh, but in the third year they may be prosecuted in an English or Foreign University. By the terms of the Deed of Foundation (given at p. 205 of the CALENDAR for 1866-67), this and the two following Scholarships held by Students who have passed their Examinations for the Degree of Master of Arts with Honours, have hitherto been conferred upon the most distinguished in that one of the Honours Departments which is appropriated for each year. The Scholarship cannot be conferred upon any one whose age exceeds twenty-three years, and it cannot be held with any other Scholarship or Fellowship of a Scottish University, or with any situation yielding an income of £100 per annum. In the event of the Scholarship becoming vacant during the period of

tenure, through resignation or otherwise, of the Scholar, then the sum falling in shall be bestowed by the Senatus for the remaining period of tenure on a Student attending the Divinity Classes who shall be reported by the Faculty of Theology to be a meritorious Student and deserving of the Scholarship. The next award may be made in April 1899.

1896. *Marshall W. G. Gray, M.A.*

X.—BRUCE OF GRANGEHILL AND FALKLAND'S SCHOLARSHIP IN MENTAL PHILOSOPHY.

This Scholarship, founded in 1865 by Mrs Tyndall Bruce of Falkland, is of the annual value of £100, and is tenable for the same period, and under the same conditions as the preceding. The subjects of examination are Logic and Psychology, Metaphysics, Moral Philosophy, and History of Philosophy. The next award may be made in April 1898.

1895. *J. Macaskill, M.A.*

XI.—BRUCE OF GRANGEHILL AND FALKLAND'S MATHEMATICAL SCHOLARSHIP.

This Scholarship, founded in 1865 by Mrs Tyndall Bruce of Falkland, is of the annual value of £100, and is tenable for the same period, and under the same conditions as the preceding. The subjects of examination are Mathematics and Natural Philosophy. The next award may be made in April 1899.

1896. *Andrew C. Smith, M.A.*

XII.—GRAY SCHOLARSHIP.

This Scholarship, founded by Mr Gray of Baad Park in 1864, is of the annual value of £86, 2s. 6d., and tenable for two years. It is awarded for distinction in one of the Honours groups of subjects for the Degree of Master of Arts, or in one of the groups of subjects for the Final Examination for the Degree of Bachelor of Science, or in the Historical and Philosophical subjects of the examination for the Degree of Bachelor of Laws, or to Students in the Faculty of Divinity for distinction in the Final Examination for the Degree of Bachelor of Divinity. It has been resolved that the Scholarship shall be offered in rotation in the Faculties of Arts, Science, Law, and Divinity. When it falls to the Faculty of Arts it will be offered in rotation in the order of the groups of Honours subjects in the Arts regulations, and when it falls to the Faculty of Science, it will be offered in one of the groups of the Second Science Examination. When not awarded in the Faculty in which it is offered, it will then be offered to the other Faculties in rotation. The holder of the Scholarship is required, as a condition of tenure, to satisfy the Senatus Academicus that he is pursuing special higher studies, or that he is engaged in original research, either in the University of Edinburgh or in another University approved by the

University Court, and he must also satisfy the Senatus Academicus of the importance of the work he proposes to undertake, and of his qualifications for such work. The next competition may take place in 1899.

1897. *Sidney George Campbell, M.A.*

XIII.—GILCHRIST SCHOLARSHIPS.

These Scholarships were founded in 1865 by the Trustees of the late Dr Gilchrist; they are three in number, each of the annual value of £100, and are open to natives of India who have passed competitive examinations at the Presidential Colleges of India. They are attached to the Medical, Law, and Literary Classes in the University.

XIV.-XV.—FETTES EXHIBITIONS.

These Exhibitions are each of the annual value of £60, and are tenable for four years. They are open annually for competition, one among the Foundationers alone, and the other among the Foundationers and such other pupils as have attended Fettes College regularly for not less than five years.

XVI.-XVII.—RHIND SCHOLARSHIPS.

These Scholarships were, in accordance with the will of the late A. H. Rhind, Esq., of Sibster, founded by his trustees on the reversion of his estate. They are two in number, one in the Department of Classical Literature, the other in that of Philosophy, are each of the annual value of £84, 2s. 6d., are tenable for not less than two years, or more than three years, and are open to Undergraduates and to Graduates of not more than three years' standing at the time of the competition. Competitors must have attended classes in this University for not less than three *winter* sessions or their equivalent, attendance being defined to mean that the competitors must present Certificates of having attended at least four classes during the period aforesaid, and of having duly performed the work of the classes. The successful Candidates may be required to undertake duties connected with the teaching of the University, or otherwise assist in some department of its operations. *See* Deed of Foundation at p. 323 of CALENDAR for 1874-75. The next competition for the Classical Scholarship may take place in April 1898, and the next competition for the Philosophical Scholarship may take place in April 1899.

1895. J. M. Moore, M.A. (Cl.) | 1896. *Alexander Darroch, (Phil.).*

XVIII.—THE CHARLES MACLAREN SCHOLARSHIP.

This Scholarship, founded in 1871 by the Trustees of Mrs Maclaren, in memory of Charles Maclaren, Esq., the eminent geologist, is of the annual value of £112, and is tenable for three years. It is for the encouragement of the study of Mathematics and Natural Philosophy, and is open to all graduates in Arts of not more than three years'

standing at the time of the Competition (and under 30 years of age) who shall have taken honours in Mathematics. The successful competitors are to spend a few months in travelling and in examining remarkable Engineering and Architectural Structures, and to report to the Senatus, which report the Senatus may cause to be publicly read in the University. The Deed of Foundation is given at p. 324 of CALENDAR for 1873-74. The next competition may be in April 1899.

1896. *James A. Macdonald, M.A., B.Sc.*

XIX.—NEIL ARNOTT SCHOLARSHIP FOR EXPERIMENTAL PHYSICS.

This Scholarship, value about £34, 7s. 6d., was founded in 1874, and is awarded annually to the most distinguished Student in the Physical Laboratory of the University.

The recipient must, during the ensuing Summer and Winter Sessions, assist the Professor of Natural Philosophy in the Laboratory. Failing a Student deemed by the Professor worthy of the Scholarship, it may be given to the Candidate for a Degree in Arts who has undergone the Examination in Natural Philosophy with most distinction. *See* Deed of Foundation, at p. 340 of CALENDAR for 1875-76.

1897. *Alex. Aitken.*

XX.-XXII.—FERGUSON SCHOLARSHIPS.

The examination of Candidates for Three of these Scholarships, each of the annual value of £80, and tenable for two years, will be held in Glasgow, on Tuesday, 28th September 1897, and following day. One of the Scholarships to be awarded for the greatest proficiency in Classics; one for the greatest proficiency in Mathematics, including Natural Philosophy; and one for the greatest proficiency in Mental Philosophy, including Logic, Psychology, Metaphysics, and Moral Philosophy.

The Competition is open to "all persons who have passed the Examinations required for the Degree of Master of Arts in one of the Universities of Scotland (whether taking the Degree at the same time or not) provided that at the time of the Competition not more than six years have elapsed since the date of their first matriculation after having passed the Preliminary Examination, and who have not already gained one of these Scholarships." Candidates are required to enter their names at the Office of the Ferguson Bequest Fund, 94 Bath Street, Glasgow, not later than 1st September 1897.

For further information apply at the Office of The Ferguson Bequest Fund, 94 Bath Street, Glasgow.

HOLDERS, 1896.

Classical—Alfred Croom Paterson, M.A. of Edinburgh University.
Mathematical—John Forbes Cameron, M.A. do.
Philosophical — Alexander Morrice Mackay, M.A. of Aberdeen University.

XXIII.-XXXII. VANS DUNLOP SCHOLARSHIPS.

TEN VANS DUNLOP SCHOLARSHIPS, each of the annual value of £100, and tenable for three years, are, by the Deed of Foundation, appropriated to the following subjects:—1. English Literature and Poetry; 2. Classical Learning—Latin and Greek; 3. Commercial and Political Economy and Mercantile Law; 4. Logic and Metaphysics; 5. Natural Philosophy; 6. Mathematics; 7. Hebrew and Oriental (Semitic) Languages; 8. History; 9. Moral Philosophy; 10. Sanskrit and Comparative Philology. In terms of the Trust-Disposition (which is given at p. 380 of CALENDAR for 1880-81), the Scholarships are given only for "distinguished proficiency" in the various subjects of competition, as determined by the Examiners and the Senatus Academicus.

The following are the General Regulations for the Examinations:—

Competitors for these Scholarships must have regularly attended at least one full Course or two Half-Courses in the University of Edinburgh during each Academic year in which they claim to have been Matriculated Students, and no Candidate is eligible who has discontinued attendance at the University of Edinburgh for more than one year. The years of Academic study count from the first year in which a Candidate has attended one of the classes qualifying for the degree of M.A.

Each Scholarship is tenable on condition that the Scholar submits annually to the University evidence that he is prosecuting his studies, or his professional work, in a manner satisfactory to the Senatus. The evidence may consist of—(1.) Certificates of attendance on Lectures or Laboratories in this or some other University; or (2.) Certificate of having acted as Assistant to a Professor in this or some other University; or (3.) A written Report of work done by the Scholar during the year, together with a Thesis composed by himself on a subject connected with that work.

Not more than one of these Scholarships can be held by the same person, and Vans Dunlop Scholars cannot hold, along with their Scholarship, any other Fellowship, Scholarship, or Bursary in the University of Edinburgh.

Candidates for the Vans Dunlop Scholarships must, on entering for the Examinations, produce evidence that they have fulfilled the conditions of eligibility.

Candidates, if not already matriculated, are required to pay the Matriculation Fee for the year in which the competition takes place.

The names of Candidates highly distinguished in the Vans Dunlop Scholarship examinations may be published.

XXIII.—ENGLISH LITERATURE AND POETRY.

Candidates are subjected to an Examination testing—(1.) Knowledge of the History of English Literature generally, and more particularly through a prescribed period; (2.) Acquaintance with certain books, chiefly of English Poetry, prescribed for special reading; (3.) Ability

in English Composition, in the form of an Essay, written in the Examination Room, on some subject of literary criticism.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than five years altogether in this or any other University; and who have given regular attendance in the Class of Rhetoric and English Literature, and in at least one other class on English Language or Literature. The next Competition may take place in March 1900.

The Professor of Rhetoric and English Literature, and an Examiner appointed by the Senatus, are the Examiners.

1897. *Donald T. Mackintosh.*
Prox. access., John Purves.

XXIV.—Classical Learning—Latin and Greek.

1. *Latin.*—The Examination will test :—
   (*a.*) Knowledge of Latin books and special subjects previously prescribed.
   (*b.*) Power of Latin Composition, and of translating from Latin authors not previously prescribed.
   (*c.*) Knowledge of Latin History and Literature.
2. *Greek.*—(*a.*) Knowledge of Greek books and special subjects previously prescribed.
   (*b.*) Power of Greek Composition, and of translating from Greek authors not prescribed.
   (*c.*) Knowledge of Greek History and Literature.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than four years altogether in this or any other University, and who have given regular attendance in the Latin and Greek Classes necessary for graduation in Arts.

The next Competition will take place in October 1899.

The Professors of Humanity and Greek are the Examiners.

1896. *Arthur B. Keith.*

XXV.—Commercial and Political Economy and Mercantile Law.

The Examination will test knowledge of the subjects assigned in the Deed of Endowment to the Chair of Commercial and Political Economy and Mercantile Law. It will include the subjects embraced in the Lectures, and also in books prescribed from time to time by the Appropriate Board of Studies.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than five years altogether in this or any other University, and who have regularly attended the Class of Commercial and Political Economy and Mercantile Law. The next Competition will take place in October 1898.

The Professor of Political Economy and an Examiner appointed by the Senatus are the Examiners.

1896. *John Row-Fogo.*

XXVI.—Logic and Metaphysics.

The Examination will test knowledge of (*a.*) Logic, (*b.*) Psychology, (*c.*) Metaphysics and the History of Philosophy. It will include the subjects embraced in the Lectures on each of these branches; also prescribed Reading and Studies of special subjects.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than four years altogether at this or any other University, and who have completed attendance at the Ordinary Class of Logic and Metaphysics. The next Competition will take place in March 1900.

The Professor of Logic and Metaphysics and the Professor of Moral Philosophy are the Examiners.

1897. *George Claus Rankin, M.A.*

XXVII.—Natural Philosophy.

The Examination will test the knowledge of the Candidates in Experimental Physics and Applied Mathematics.

The Competition is open to all who have been Matriculated Students for at least two years in this University, and not more than six years altogether in this or any other University, and who have attended at least two of the classes of Natural Philosophy, of which the Ordinary Course must be one. The next Examination will take place in March 1898.

The Professor of Natural Philosophy and an Examiner appointed by the Senatus are the Examiners.

1895. *J. F. Cameron, M.A.*

XXVIII.—Mathematics.

The Examination will test Candidates in pure mathematical subjects in the Honours Department for the Degree of Master of Arts, and in special subjects to be prescribed by the Examiners from time to time.

The Competition is open to all who have been Matriculated Students for at least two years in this University, and not more than six years altogether in this or any other University, and who have attended at least two of the Mathematicall Classes, one of these being an Honours Class. The next Examination will take place in March 1898.

The Professor of Mathematics and an Examiner appointed by the Senatus are the Examiners.

1895. *J. A. Johnston, M.A.*

XXIX.—Hebrew and Oriental (Semitic) Languages.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than six years altogether in this or any other University; and who

have attended at least two courses under the Professor of Hebrew and Oriental Languages.

Candidates will be examined in Hebrew, Syriac, and Arabic.

The Examiners are the Professor of Hebrew and Oriental Languages, and an Examiner appointed by the Senatus. The next Competition will take place at the end of Winter Session 1898-99.

1896. *Andrew Tweedie, M.A.*

XXX.—History.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than five years altogether in this or any other University, and who have attended two or more courses of Professorial Lectures on History within the University.

The Examiners are the Professors of History, and such others as may be appointed by the Senatus from time to time. The next Competition will take place in October 1898.

1895. *C. S. Pennell.*
Prox. access., W. L. Mathieson.

XXXI.—Moral Philosophy.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than four years altogether in this or any other University, and who have completed attendance at the Ordinary Class of Moral Philosophy.

The Professor of Moral Philosophy and the Professor of Logic and Metaphysics are the Examiners. The next Competition will take place in October 1898.

1895. *Alexander Mair.*

XXXII.—Sanskrit and Comparative Philology.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than six years altogether in this or any other University, and who have attended at least two courses under the Professor of Sanskrit and Comparative Philology.

The Examiners are the Professor of Sanskrit and Comparative Philology, and another Examiner to be appointed by the Senatus. The next Competition will take place in March 1898.

1895. *Willim Eggeling.*

XXXIII.—SKIRVING SCHOLARSHIP FOR MORAL PHILOSOPHY.

This Scholarship is to be founded (after the death of an annuitant) in accordance with the Will of the late David Skirving, of No. 13 Westbourne Park, London. It will be of the annual value of about £50, and tenable for three years. *See* Deed of Foundation at p. 350 of Calendar for 1876-77.

XXXIV.—LANG SCHOLARSHIPS.

This is a Bequest by the late John Lang, Esq. of Warren Park, Ayrshire, with the object of founding four Scholarships, to be called the "Lang Scholarships," one in Natural Philosophy, one in Mathematics, one in Chemistry, and one in Botany. The capital sum will be payable on the death of the survivor of two liferenters.

XXXV.—MACKAY SMITH SCHOLARSHIP IN NATURAL PHILOSOPHY.

This Scholarship is of the annual value of £25, tenable for two years, and is open for competition to Students who have attended the Class of Natural Philosophy in this University. The successful candidate is required to attend the class of Natural Philosophy, or to prosecute the study of Natural Philosophy, during at least one year of his tenure of the Scholarship, in such way as the Senatus may direct or approve. The next award may be made in April 1898.

1896. *Alexander Brown.*

XXXVI.—GEORGE SCOTT SCHOLARSHIP.

This Scholarship of about £30, is awarded annually (a previous holder not being ineligible for re-election), for the purpose of assisting Graduates in Arts of the University, of not more than three years' standing at the date of their election as Scholars, to travel for purposes of Study or Research. Applicants are required to state:—1. The purpose for which they desire to use the Scholarship; and 2. What other means they have towards the object in view. The award will be based—(1) On the importance of the work to be undertaken; (2) the sufficiency of the means proposed to be applied to the work; (3) the capability of the applicant for the work he proposes to undertake. The holders are required in all cases to satisfy the Senatus, by half yearly reports, that they are carrying out the work undertaken; and must present a final report or deliver a short Course of Lectures on their work when completed. The appointment is made by the Senatus on a report by the Faculty of Arts on the merits of the applicants. The first competition will be open to all Graduates in Arts qualified as above, but thereafter preference will be given to Candidates desiring to undertake work in the following groups of subjects, under the following scheme of rotation, provided always that a suitable Candidate presents himself:—(1) Classical Languages and Classical Archæology; (2) Mental Philosophy; (3) Mathematical and Physical Science; (4) Semitic and Indian Languages; (5) English and Modern Languages; (6) History. See Deed of Foundation in CALENDAR for 1897-98, page 419.

1897. *Charles Menmuir.*

XXXVII.—MACPHERSON SCHOLARSHIP.

This Scholarship is awarded annually by the Senatus Academicus to a student who has, within six years of the date of the competition, com-

pleted the examination necessary for the degree of Master of Arts in the University of Edinburgh, with or without honours, who has included in his examination the subjects of Latin and Greek, and who has attended the class of Celtic and attained distinction in that subject. The scholar must study Celtic in a University or other place offering special facilities for Celtic study, subject to the approval of the Senatus Academicus. The Scholarship is of the annual value of about £84, 7s. 4d., and is tenable for one year. Before 15th February next after his appointment the scholar must submit to the Senatus Academicus a report of the work he has done, and of such further studies in Celtic as he proposes to prosecute, and the Senatus Academicus may, if they think fit, appoint him to the said Scholarship for a further period of one year. 1897. *George Henderson, M.A.*

XXXVIII.—THE NICHOL FOUNDATION.

The free yearly interest or income derivable from this foundation, amounting to about £ , shall be paid to a deserving Student, who shall regularly attend and devote himself as assistant in the Physical Laboratory, and who shall be bound to give his whole time in promoting the study of Natural Philosophy in connection therewith. It is tenable for one year, but on the recommendation of the Professor of Natural Philosophy it may be continued for a second year or longer. It cannot be held along with any Bursary or Scholarship. See Deed of Foundation in CALENDAR for 1897-98, page 419.

XXXIX., XL.—RITCHIE SCHOLARSHIPS FOR THE STUDY OF ORIENTAL LANGUAGES.

These Scholarships, founded by the late James Ritchie, formerly of Edinburgh, are for Candidates for the Civil Service of India, are each of the annual value of £40, and tenable for one year, but may be renewed for a second, and in special cases even for a third year. They are not tenable along with any other Scholarship or Bursary without the express approval of the Senatus. Candidates must have taken Second Class Honours (at least) in some department in the Faculty of Arts, or must have taken a degree in Science, or must hold First Class (Prize) Certificates in not less than *four different* subjects, and must be 18 years of age at the date of the Examination, and not more than 23 on 1st January following. Candidates may offer themselves for Sanskrit or Arabic. The subjects of examination will be—(1) An English Essay; (2) a translation, consisting of passages in Greek, Latin, French, and German; (3) a paper in Sanskrit or Arabic, if offered. Candidates on entering for the examination should submit (*a*) evidence of age, (*b*) a complete list of distinctions in class or honours examinations, inasmuch as it shall be in the discretion of the Faculty to take into account such previous distinctions as may be considered important; (*c*) must give intimation if offering Sanskrit or Arabic. The holders will be required (1) to declare their intention of

competing for the Civil Service of India; (2) to study Sanskrit or Arabic, to attend a class in this University in one of these subjects, and to produce evidence of progress; (3) to produce evidence of general industry and progress in other subjects which he intends to offer in the Indian Civil Service Competition. See page 427 of CALENDAR for 1897-98.

IV.—FELLOWSHIPS.

I.—GUTHRIE FELLOWSHIP IN CLASSICAL LITERATURE.

This fellowship, founded in 1866 by James Guthrie, Esq., London, is of the annual value of £86, 2s. 6d., and is tenable for four years. By the terms of the Deed of Foundation (given at p. 210 of the CALENDAR for 1866-67) it is for proficiency in Classical Literature, and is open to Graduates in Arts of the University who have taken their Degree since the last competition. Students who have passed all their examinations for a Degree since the last competition, but have deferred graduating, are also eligible. It cannot be held along with any other Fellowship or Scholarship in a Scottish University. The next Competition may take place in April 1899.

1895. *R. L. Ross, M.A.*

II.—SIR WILLIAM HAMILTON FELLOWSHIP IN MENTAL PHILOSOPHY.

This Fellowship, founded in 1866 by the Subscribers to the fund for a Memorial to the late Professor Sir William Hamilton, and by the Association for the better endowment of the University, is of the annual value of £85, 5s., and is tenable for three years. By the Deed of Foundation (given at p. 213 of CALENDAR for 1866-67), the Fellowship is open to all Graduates in Arts of the University of Edinburgh of not more than three years' standing at the time of the competition. It cannot be held along with any other Scholarship or Fellowship in a Scottish University. The subjects of examination are Logic, Metaphysics, Moral Philosophy, and the History of Philosophy. The next Competition may take place in April 1900.

1897. *James Black Baillie, M.A.*

III.—SHAW FELLOWSHIP IN MENTAL PHILOSOPHY.

This Fellowship, founded in 1867 by Contributors to a Memorial to Sir James Shaw, Bart., a native of Ayrshire, afterwards Lord Mayor of, and M.P. for, London, and by the Association for the better endowment of the University, for the encouragement of the study of Logic, Psychology, Metaphysics, Moral Philosophy, and the History of Philosophy, is awarded after competitive examination on these subjects. It is open to Graduates in Arts of any of the four Scottish Universities, of not more than five years' standing at the time of the

competition, is of the annual value of £139, 15s., and is tenable for five years. It cannot be held along with any other Fellowship, Scholarship, or Bursary in any Scottish University, and it is not open to the competition of any person who already holds a Fellowship in any English or Irish University, though the holder of the Shaw Fellowship will not be precluded from afterwards obtaining an English or Irish Fellowship. The holder is required during the fourth or fifth year of his tenure of the Fellowship to deliver in this University a Course of four Lectures on any of the subjects for the encouragement of the study of which the Fellowship was founded. The next Competition for the Fellowship may take place in April 1899. (Deed of Foundation, p. 237 of CALENDAR for 1868-69.)

1893. *Harry Barker, M.A.*

IV.-VI.—GEORGE HERIOT FELLOWSHIPS.

Three Fellowships for Research, each of £100, and tenable for one year, are offered annually by the Governors of the Trust, to be awarded by Competitive Examination by means of Theses in each of the following three Groups of Study, viz. :—(1) Mathematical, Physical, Experimental, and Natural Science, embracing the following subjects :—Mathematics, Natural Philosophy, Astronomy, Botany, Geology, Physiology, Human Anatomy, Anthropology, Zoology, Chemistry. (2) Language and Literature, embracing — Latin, Greek, Modern Greek, French, German, Italian, Sanskrit, Hebrew, Arabic, Syriac, Celtic, English. (3) Philosophy and History, embracing—Logic and Metaphysics, Moral Philosophy, Political Economy, Education (Theory, History, and Art of), Philosophy of Law and History, Archæology and Art (History of), Constitutional Law and History, Roman Law, Public Law. The Fellowships are open to any Bachelor of Science or of Medicine, or to any Master of Arts with Honours of the University of not more than five years' standing from the dates of their Degrees respectively, provided the Candidate has attended during his Curriculum not less than two years at this University. In case of equality between competitors in two different Subjects within the same Group, preference will be given to the Subjects in the above order, except that the Subject in each Group in which an award may be made during 1897 will be placed at the end of the Group in 1898. Should no award be made in any Group, the Fellowship thus set free may be awarded to one of the Fellows of the preceding year, or offered to the most deserving of the unsuccessful Candidates in one of the other Groups.

Each applicant must give evidence that his time will be sufficiently at his disposal during his tenure to allow him to carry on the Research specified, and he must give evidence especially in his Thesis of capacity for conducting such research, either by describing work he has already done, or by detailing plans for future work.

The Fellows must prosecute Research during the tenure of their Fellowships in some department of Language and Literature, Philo-

sophy and History, or Science, to be specified by them in their applications. The stipend is payable half-yearly in advance, but before receiving any payment after the first, the Fellow shall submit to the Dean of the Faculty in which he is a Graduate, a written report of the progress of the work in which he is engaged, with a programme of his future work.

Applications for the Fellowships must be lodged with the Secretary of Senatus annually on or before 1st June, accompanied by a Thesis, and statement by the Candidate of the manner in which he proposes to fulfil the conditions of tenure if successful in gaining a Fellowship. At the same time applications should be lodged by such of the Fellows of the preceding year as may desire a continuation of their Fellowship, and can show good reason why such continuation should be granted.

Copies of the Regulations may be obtained on application to Mr DAVID LEWIS, Treasurer, George Heriot's Trust, 20 York Place, Edinburgh. *See* Regulations in CALENDAR for 1896-97, page 714.

1895. *D. Nichol Smith, M.A.* (English).

EARL OF MORAY'S BEQUEST FOR THE PROMOTION OF ORIGINAL RESEARCH.

All Graduates and other members of the University, "or other persons who have given satisfactory proof of general education and fitness to engage in some special study or research," may apply for grants from this fund. In so far as the subject of research admits, the investigation shall be conducted in the buildings of the University. See Regulations, page 428 of CALENDAR for 1897-98.

WILLIAM DICKSON TRAVELLING FUND.

This Fund (the interest of which amounts to about £100 per annum) has been established for the purpose of assisting Graduates of any Faculty, of not more than Three Years' standing, to travel, for a shorter or longer period, for purposes of study or research. Grants from the Fund may be made to holders of Scholarships, Bursaries, &c. Applicants are required to state—"(1) The purpose for which the Applicants desire to get a Grant for travelling; (2) the total amount of expenditure thought necessary; (3) the other means they have towards meeting this expenditure; and (4) the amount of the Grant required from the Fund." The award of a grant to be based on—"(1) The importance of the work proposed to be undertaken; (2) the sufficiency of the means proposed to be applied to the work; (3) the capability of the Applicants for the work they respectively propose to undertake." "Holders of Grants in all cases to satisfy the Senatus by periodical reports that they are carrying out satisfactorily the work or investigation undertaken; and to present a final report, or to deliver a course of public University Lectures on their work when completed." Applications must be lodged with the *Secretary of Senatus* on or before 15th March annually. For Deed of Endowment, *see* p. 514 of CALENDAR, 1889-90.

1897.—Grants were made to each of the following:—John Begg, M.A.; J. A. Murray, B.Sc.; Longfield Smith, B.Sc.; Leopold H. O. B. Critchley, M.A.

THE SWINEY LECTURESHIP ON GEOLOGY.

This Lectureship is in the patronage of the Trustees of the British Museum, is of the annual value of £144, and is open to Graduates in any of the Faculties in this University who have obtained their Degrees after examination. For further particulars *see* under Faculty of Science, page 259.

FELLOWSHIPS, SCHOLARSHIPS, UNIVERSITY PRIZES, AND BURSARIES, OPEN DURING THE ACADEMIC YEAR 1897-98.

Fellowships.[1]

Candidates for the Fellowships and Scholarships open in Spring must give their names and addresses to the Clerk of Senatus, University, Edinburgh, *on or before* 15th March 1898.[2] The Examinations will begin in the *Examination Hall*, University, at 9 o'clock on *Monday, 28th March* 1898, unless otherwise stated, and will be continued on following days, at the same hours.

1-3. *Three George Heriot Fellowships for Research*, Nos. IV.-VI., page 177.

Scholarships.[1]

4. *Bruce of Grangehill and Falkland's Philosophical Scholarship*, No. X., page 167.

5. *Rhind Classical Scholarship*, No. XVI., page 168.

6. *Vans Dunlop Scholarship in Natural Philosophy*, No. XXVII., page 172.

The Examination will begin on 29th March 1898, at 2 P.M., and will be (in as far as convenient and practicable) combined with the Examination for Honours in the Department of Mathematics. Names of Candidates to be entered *on or before* 15th March.[2]

7. *Vans Dunlop Scholarship in Mathematics*, No. XXVIII., page 172.

In addition to the ordinary Honours' Examination, papers will be set on special subjects. The questions, some of which will be texts for short dissertations, will be set so as to allow the candidate to specialise

[1] For further information, and for information regarding other Fellowships, Scholarships, Bursaries, and Prizes, see CALENDAR, where full information regarding the conditions and values, &c., are given. The values of the Fellowships, Scholarships, Bursaries, and Prizes are subject to variation consequent on the rise and fall of the rate of interest, &c.

[2] The Senatus reserve power to relax this Regulation in cases where they are satisfied that very special cause has been shown.

his reading in one or other of the following lines :—(*a.*) Higher Algebra (Salmon, I.-XVII.), Higher parts of Differential and Integral Calculus —for example, Definite Integrals, Fourier's Theorem, Elliptic Integrals, Differential Equations (Forsyth); (*b.*) Theory of Invariants (Salmon, I.-XVII.), Projective Geometry, Higher Plane Curves (Salmon, Chapters I.-V.), Geometry of Three Dimensions (Salmon, Chapters I.-XIII.). The Professor of Mathematics will give advice regarding a course of reading for the examination. The Examination will begin on 28th March 1898, at 9 A.M. Names of Candidates to be entered *on or before* 15th March.[1]

8. *Vans Dunlop Scholarship in Sanskrit and Comparative Philology*, No. XXXII., page 173. The Examination will take place in March 1898. The date will be afterwards announced. Names to be entered *on or before* 15th March.[1]

The following are the subjects of Examination :—Sanskrit ; Panchatantra, Book I.; Sakuntalā ; Meghadūta, with Mallinātha's commentary ; Grammar ; Passages for translation into Sanskrit ; some knowledge of the history of Sanskrit literature.

COMPARATIVE PHILOLOGY.—Delbrück, Introduction to the Study of Language ; Henry, Short Comparative Grammar of Greek and Latin ; with reference to Sanskrit etymology.

9. *Vans Dunlop Scholarship in History*, No. XXX., page 173.

The Competition will take place on the third Monday, Tuesday, and Wednesday of October 1898, beginning at 10 A.M. each day. Names to be entered *on or before* 28th September.[1]

The Subjects of Examination are—

(1) History of Great Britain, 1485-1885, with special reference to colonial expansion and foreign policy in the eighteenth century.

(2) Constitutional History of (*a*) England, 1603-1784 ; (*b*) United States, 1763-1789 ; (*c*) France, 1830-1884.

(3) History of Scotland, 1603-1707, with special reference to the Union of 1707.

10. *Vans Dunlop Scholarship in Moral Philosophy*. No. XXXI., page 173.

The Examination will test knowledge of Philosophy, specially on its Ethical side. It will include the following works :—

(1) Sigwart's *Logic*, vol. i. ; Ward's Article on *Psychology* ; James' *Principles of Psychology* (Chapters on *Association*, *Emotion*, *and Will*). Kant's *Critique of Pure Reason* ; (The Aesthetic and the Analytic). Plato's *Republic*, and Aristotle's *Nicom. Ethics*, Books i.-iv. Butler's *Three Sermons on Human Nature* ; Kant's *Groundwork of the Metaphysics of Ethics* ; Mill's *Utilitarianism* ; Sidgwick's *Methods of Ethics* ; Hegel's *Philosophy of Right*.

Second half of the Scholarship not to be paid unless the holder attains the standard of First or Second Class Honours within 18 months.

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[1] See footnote 2, p. 179.

The Examination will begin on Monday, 17th October 1898. Names to be entered on or before 28th September.[1]

11. *Vans Dunlop Scholarship in Commercial and Political Economy and Mercantile Law*, No. XXV., page 173. The Competition for this Scholarship will take place after the conclusion of the Graduation Examination on Law in October 1898. Names to be entered on or before 28th September.

The following books are recommended:—Adam Smith's *Wealth of Nations*, Book V.; Ricardo's *Principles of Political Economy*, Chaps. VIII.-XVIII. inclusive, XXII., XXIII., XXV., XXVIII., XXIX.; Bastable's *Public Finance* (2nd edit.); Marshall's *Principles of Economics* Vol. I. (3rd edit.); Sidgwick's *Elements of Politics*; Nicholson's *Principles of Political Economy*, Vol. I.; Nicholson's *Money and Monetary Problems* (4th edit.); Cunningham's *Growth of English Industry and Commerce*; Sir George Nicholl's *History of the English Poor Law* (new edition); Walker's *International Bi-Metallism*.

12. *The Mackay Smith Scholarship in Natural Philosophy*, No. XXXV., page 174. The Examination will take place at the same time as the Examination in Natural Philosophy for the ordinary Degree of M.A. (1st April 1898, from 9-11 and 11.30-1.30). Names of Candidates to be given in not later than 15th March.[1]

13. *Macpherson Scholarship*, No. XXXVII., page 174. The subjects of Examination are: (1) Fís Adamnáin and Longest Mac N-Usnig (Windisch's Irische Texte). (2) *Modern Gaelic*: Duncan M'Intyre's Poems; Keating's Three Shafts of Death, Books I. and II. (Atkinson's Edition). (3) Translations into English from Old and Modern Gaelic Authors (Scottish *and* Irish) not prescribed. (4) Translation from English into Gaelic prose (Scottish *or* Irish). (5) A general knowledge of the History of Gaelic Literature, with more detailed knowledge of the Literature of the Scottish Highlands (from 1567 A.D. till the present day). The Scholarship is awarded annually in April. Date to be afterwards announced. Names to be entered on or before 15th March.[1]

14. The *George Scott Scholarship*, No. XXXVI., page 174. Names to be entered on or before 15th March.[1]

15. *Neil Arnott Scholarship for Experimental Physics*, No. XIX., page 175.

16, 17. *Two Ritchie Scholarships*, for candidates for the Civil Service of India. See Nos. XXXIX., XL., page 175. The Examination will begin on 27th September 1897, at 9 A.M. Names of candidates to be entered at the Matriculation Office, on or before 27th August.

18-20. *Three Ferguson Scholarships*, No. XX., page 169.

21. The *William Dickson Travelling Fund*, page 178.

22. *Earl of Moray's Bequest for the promotion of Original Research.* See page 178.

[1] See footnote 2, page 179.

Prizes.[1]

1. The *Lord Rector's Prize*, of twenty-five guineas, for the best Essay on "Continental influence on Scottish Life and Literature." The Prize is open to Matriculated Students, and to Graduates of not more than two years' standing. Essays to be lodged with the Secretary of Senatus on or before 1st November, each Essay distinguished by a motto, and accompanied by a sealed envelope containing the name, address, and University standing of the Candidate.

2. *Scott and Dunbar Prize*, No. VI., page 164.

3. *Bruce of Grangehill and Falkland's Prize*, No. III., page 163.

4. *The Elizabeth Hamilton Prize* of £5 is offered to the best Woman Student in the Class of Logic.

5. *Neil Arnott Prize*, No. I., page 406.

6. *Cousin Prize in Fine Art*, No. VII., page 164.

7, 8. *The Trustees of Gray's Prize Essay Fund* offer two Prizes of £20 and £10 for the first and second best Essays on Carlyle's "French Revolution." For further information apply to the Rev. A. J. B. Paterson, Duns. See page 163.

9. *Dr Muir's Prizes*, No. V., page 163.

10, 11. *Two Newton Bursaries or Prizes*, No. LXIV., pages 152 and 160.

12. *The Kelland Memorial Prize*, of about £4, 12s., will be awarded by Examination in October. The paper will be on the Higher Geometry for the John Welsh Bursaries (set on Monday, 4th October, at 9 A.M.), with such additional questions as may be deemed necessary. Students who made a complete attendance on the Junior Mathematics Class for the first time in the previous Session (1896-97) will alone be eligible to compete for the prize in October next. Names to be given in not later than 17th September.

Bursaries.[1]

FOR STUDENTS ENTERING THEIR FIRST YEAR.

(For Time-Table of Examinations, see pages 120-122.)

Bursaries in Arts heretofore tenable for four years shall continue to be so tenable, provided that, if the holders graduate after three years, they shall only retain their Bursaries during a fourth year if they shall engage in study approved by the Senatus in subjects included in the Curriculum for Degrees in Arts or in Pure Science. Bursars in Arts, subject to the provision as to the fourth year of tenure, shall attend in each year at least two classes qualifying for Graduation in Arts, and shall duly perform the work of these classes: Provided (1) that, for the purposes of this section, the classes known as Middle Classes, so long

[1] See footnote 1, p. 179.

as the same exist, may be attended in place of classes qualifying for Graduation; and (2) that it shall be in the power of the Senatus, with approval of the University Court, to permit such Bursars to attend classes qualifying for Graduation in Pure Science in place of classes qualifying for Graduation in Arts.

The Bursaries are awarded on the results of the University Bursary Examinations unless otherwise stated, and are tenable at the University of Edinburgh only. The Senatus reserve the power, under Section VIII. of Ordinance No. 57, to award not more than two First Year Bursaries in Arts in respect of exceptional distinction in any one branch of study.

For Bursary and other purposes, where the phrase "First-year's Student in Arts or Pure Science" is not by Deed of Foundation or otherwise defined, it shall mean "A Student in Arts or Pure Science who has not attended any class qualifying for Graduation in the said Faculties in any Scottish University."

The Subjects of Examination for the first year Bursaries, Nos. 1 to 15 inclusively in the following list, are the subjects prescribed for the Preliminary Examination, viz.: — English (full marks 100), Latin (100), Greek (100), Mathematics (100), French (50), German (50), Italian (50), and Dynamics (50), with additional papers in English, Latin, Greek, Mathematics, French, and German. Candidates may select not more than five subjects; provided always that no Candidate will be credited with marks in any subject in which he has not obtained twenty-five per cent. of the total marks assigned to that subject. Those who select Latin, Greek, or Mathematics must for the Bursary Competition take the papers on these subjects on the Higher Standard. The Examination Papers are indicated in the Time-Table of Examinations by the figure 1.

Candidates for Bursaries [Nos. 16 to 20 inclusively, and others] which are not awarded by open competition must present themselves for the Preliminary Examination in Arts prescribed by the Regulations for Degrees in Arts, Section III., and no Bursary shall, except as hereinafter provided, be awarded to any Candidate who shall not have passed the Preliminary Examination in Arts (or its equivalent). But it is in the power of the Senatus, with the approval of the University Court, to admit to a Bursary in Arts not awarded by open competition a Candidate who shall have passed in at least one subject of the Preliminary Examination, on the condition that he shall not retain the Bursary unless he shall have passed in all the subjects not later than the Second Preliminary Examination after the date of his admission as Bursar. When there are more than one eligible Candidate for a restricted or preferential Bursary [Nos. 16 to 20 and others], the Subjects of Examination are:—English (as for Arts and Science Preliminary), Lower Latin, Lower Greek, and Lower Mathematics. Candidates for the MacKinnon Bursary will in addition get Translation of an easy passage from Gaelic to English, Translation of Sen-

tences from English to Gaelic, and Elementary Questions in Gaelic Grammar. The papers are indicated in the Time-Table of Examinations by the figure 3.

Candidates for Bursaries Nos. 1 to 21 inclusively may obtain schedules at the Matriculation Office, University (Old) Buildings, which must be completed and returned to the Clerk of Senatus *before* 17th September. The Senatus may relax this Regulation in cases where very special cause has been shown.

County Clubs, and others who prefer this examination, may, by arranging with the University Court, avail themselves of the University Examinations by giving written intimation of the names of their Candidates at the Matriculation Office not later than 17th September. Those who desire to have their Bursaries inserted in the CALENDAR, under the head of Bursaries open during the year, are requested to give intimation to the Editor before 1st January.

Candidates for Bursaries, unless also Candidates for the Preliminary Examination, pay no fee.

Town Council Bursaries.—Candidates for Bursaries in the gift of the Town Council, a number of which are vacant, are referred to the "*City Clerk, Council Chambers*, Edinburgh," to whom early application should be made.

County Club and Private Bursaries.—Candidates for Bursaries instituted by various County Clubs are referred to the respective Secretaries of those Clubs. Information as to Private Bursaries may be obtained from the Patrons or from their Agents.

The names of the successful Candidates, and of others distinguished in the ordinary Bursary competition, will be published, in the order of merit, in the University Calendar, along with the names of the schools from which they come, provided that they have matriculated and enrolled in the necessary classes for 1897-98.

1. *One Patrick Bursary*, of about £40 a-year, tenable for four years, for Candidates who have completed their School Education at Ayrshire schools or academies.

2. *James Fairbairn Bursary*, of the annual value of £34, tenable for four years. It cannot be held along with any other Bursary or Scholarship.

3. *Cousin Bursary*, £28 a-year, tenable for three years. The Bursary cannot be held along with any Fellowship, Scholarship, or Bursary, or with any situation or appointment yielding an annual income of £30 or upwards.

4. *Whitelaw Bursary*, about £23, 4s. 2d., tenable for three years.

5, 6. *Two University Endowment Association Bursaries*, each of the annual value of £20, tenable for three years. These Bursaries cannot be held with any other Bursary in any Scottish University.

7. *Tyndall Bruce Bursary*, of the annual value of £20 a-year, tenable for three years.

8, 9. *Two Sibbald Bursaries*, of the annual value of £30, tenable

for three years. Apply to Messrs Mackenzie, Innes & Logan, W.S., 23 Queen Street, Edinburgh, before 15th September.

10. *Thomson Bursary*, £25 a-year, tenable for four years. Apply to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh, before 15th September.

11, 12. *Two Mann Bursaries*, each of about £26, 13s. 4d. a-year, tenable for three years. Candidates must be sons of residents in the town of Nairn, *i.e.*, one or other of their parents must have resided within the municipal boundaries for at least twelve months at some period prior to the competition. Should there be no qualified Candidate of the first year for this Bursary, a notice will be posted at the College gate soon after the Bursary Competition. Other Preferential Candidates must then lodge their claims within one week after the notice appears on the Board.

13. *Jardine of Thorlieshope Bursary*, of the annual value of £37, 17s. 4d., and tenable for four years. Natives of the rural districts of Roxburghshire and Dumfriesshire to be preferred. The Bursars are required to attend the classes necessary for the Degree in Arts, and to take the Degree at the end of the course. In the event of there being no First Year Students, the Bursary will be thrown open to competition for one year only to second, third, or fourth year Students in succession.

14. *A Maule Bursary*, of £21 a-year, tenable for six years, for the maintenance and education of a poor and deserving student if he shall continue so long to prosecute his studies at the University.

15. *A Baxter of Balgavies Bursary*, of the annual value of £30, and tenable for three years, open both to men and women who have been educated in the High School of Dundee for at least one year immediately preceding the competition. The subjects of examination are the same as for the First Year Open Bursaries with the omission of Italian, and the addition of Chemistry (full marks 50) as a subject of examination. Candidates may select not more than five subjects, and the successful candidates may study for the Degrees of M.A., B.Sc., B.L., LL.B., or M.B., Ch.B.

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16. *Dundas Bursary*, of £21, 4s. 6d. a-year, tenable for four years. It cannot be held along with any other Bursary in the University. Apply to Major Dundas of Carron Hall, Carron.

17. *Fotheringham and Forrest Bursary*, of the annual value of £19, 16s. 4d., tenable for four years—restricted in the first place to relatives of Founder, then to such as are of the name of Forrest.

18. *Mackinnon Bursary*, of about £20, 6s. 2d. a-year (under deduction of expenses), tenable for three years. Candidates must be natives of the Counties of Argyll, Bute, Inverness, Ross, or Sutherland, and must be examined in Gaelic.

19, 20. *Two Grierson Bursaries*, each of the annual value of £20,

one tenable for four years, and one for three years—restricted in the first place to natives of the parishes of Crawford and Leadhills.

21. *Renton Bursary* (not restricted to Students of the First Year), of about £20, for one year. The holder must attend one or more of the classes of Natural Philosophy, Mathematics, Chemistry, or Political Economy. Pecuniary circumstances will be taken into consideration. It cannot be held by any one under the age of sixteen or above twenty-one, or with another Bursary of the annual value of £30 or upwards. The examination is in English and Elementary Mathematics, as for the First Year Open Bursaries. The Examination Papers are indicated by the figure 1 in the Time-Table. Names of Candidates to be entered on or before 17th September.

22. *Donald Fraser Bursary*, of £51, for high merit in the Class of Natural Philosophy, combined with proficiency in Laboratory Work, is awarded annually at the end of the Winter Session.

23. *Zetland Bursary*, of about £40 per annum, tenable for three years. The Bursary is open for competition to natives of the Islands or County of Orkney and Zetland, or children of parents, one or both of whom shall have been born in or connected for a long period of years with said Islands or County. Apply to Messrs Dundas & Wilson, C.S., 16 St Andrew Square, Edinburgh.

24. *Maclaurin Bursary* (restricted to Candidates of the name of Maclaurin), of about £62, 10s. a-year, and tenable for five years in any of the Faculties. Apply to the Town Council of Edinburgh for information regarding this, and the other Bursaries in their patronage.

25-29. *Five George Heriot Bursaries for Boys* will be awarded to Students matriculating at the University for the first time, after having passed the Preliminary Examination for a Curriculum in Arts or Science. Each Bursary is of the annual value of £30 a-year, and may be tenable for three years. Subjects of examination:—(1) Latin; (2) Mathematics; (3) English; (4) Greek; (5) French; (6) German; (7) Italian; and (8) Dynamics. Candidates may select not more than five subjects of examination. The examination papers are indicated by the figure 1 in the Time-Table of Examinations. Applications for Schedules for these Bursaries may be made to the *Governors of George Heriot's Trust*, at the Office of the Treasurer, 20 York Place, Edinburgh, on and after 15th August, and must be returned to him not later than 15th September. Candidates are required to state in their schedules of application the subjects in which they offer themselves for examination.

30-32. *Three Heriot High School Bursaries*, of £30 a year, may be tenable for three years. Regulations as in last paragraph.

33-40. *Eight George Heriot Bursaries for Women* will be awarded to Students matriculating at the University for the first time, after having passed the Preliminary Examination for a Curriculum in Arts or Science. Each Bursary is of the value of £30 a-year, and may be

tenable for three years. The subjects and conditions of the examinations are the same as for the Bursaries for boys. Application to be made in the manner referred to in the previous paragraph. The examination papers are indicated by the figure 1 in the Time-Table.

41, 42. *Two George Heriot Bursaries for Women* studying Medicine, for attendance at any School of Medicine for Women in Edinburgh recognised by the University Court. Each Bursary is of the value of £30 a-year, and may be tenable for three years. Candidates *must pass the Preliminary Examination of the University either in Arts or Science.* They may take as many subjects in addition to those qualifying for the Preliminary Examination as they please; but should they fail to secure 25 per cent. of the marks allotted to a subject the paper will be cancelled. Application to be made in the manner referred to in the previous paragraph.

43-47. *Five George Heriot Bursaries for women*, of £30 each, and tenable for one year, at St George's Training College, Edinburgh. Graduates *must pass the University Examination for the First Year Open Bursaries.* The subjects are:—English (full marks 100), Latin (100), Greek (100), Mathematics (100), French (50), German (50), Italian (50), and Dynamics (50), with additional papers in English, Latin, Greek, and Mathematics. Candidates may select not more than five subjects; provided always that no Candidate will be credited with marks in any subject in which she has not obtained 25 per cent. of the total marks assigned to that subject. Those who select Latin, Greek, or Mathematics must for the Bursary Competition take the papers on these subjects on the Higher Standard. The Examination Papers are indicated in the Time-Table of Examinations by the figure 1. Women-students of Girton or Newnham College who hold the Cambridge University Honour or Ordinary Certificates, which are equivalent to the degrees conferred on men-students, and women-students who hold the corresponding equivalents to degrees from the University of Oxford will rank for purposes of Competition as Graduates. Non-Graduates *must pass the Preliminary Examination of the University in Arts or Science, either directly or by means of exempting Certificates.* They may take as many subjects as they please in addition to those qualifying for the Preliminary; but should they fail to secure 25 per cent. of the marks allotted to a subject, the paper will be cancelled. The marks are as follows: English, 100; Latin (Higher Grade), 100; Latin (Lower Grade), 50; Greek (Higher Grade), 100; Greek (Lower Grade), 50; Mathematics (Higher Grade), 100; Mathematics (Lower Grade), 50; French, 70; German, 70; Italian, 70; Dynamics, 50. No marks will be given for the lower paper in any subject where the higher paper in that subject is also taken. Applications for Schedules for these Bursaries may be made to the Governors of George Heriot's Trust at the Office of the Treasurer, 20 York Place, Edinburgh, on and after 15th August, and must be returned to him not later than 15th September.

48, 49. *Two Simson Bursaries* of the annual value of £25, tenable

for three years, for Students who, having passed the Preliminary Examination, are entering on the first year of the course in Arts and are studying for the Ministry of the Church of Scotland. See definition of a First-year's Student, at page 183. The Examination will be held at the end of October or beginning of November. Apply to the Rev. Dr Langwill, Currie, or to the Rev. Dr Patrick, Greenside, Edinburgh.

50. *A Macdougall Bursary*, of £30 per annum, tenable for three years. Students attending the Gaelic Class preferred. It cannot be held with any Bursary or appointment yielding upwards of £50 per annum. Apply to W. C. Young, Esq., Solicitor, Perth.

51, 52, 53. *Bursaries offered by The Edinburgh Association for the University Education of Women.*

(1) *The Victoria Jubilee Bursary*, founded by His Excellency Dr Gunning, £30 for one year. (Circumstances to be taken into consideration.)

(2) *The Earl of Zetland's Bursary*, about £20 for one year.

(3) *The Mair Bursary*, of about £20 for two years. (Open to Candidates intending to follow a profession.)

These Bursaries are offered to women Candidates. The Subjects of Examination are the same as for the University First-year open Bursaries, see page 183. They cannot be held along with any other Bursary or Scholarship whatsoever, and will be awarded to such Candidates as in the opinion of the Executive Committee best fulfil the conditions of the several trusts.

Apply to the Hon. Secretary of the Association, Miss Louisa Stevenson, 13 Randolph Crescent, Edinburgh.

54. *Bursary offered through Committee of St George's Classes.*— Bursary of £10, for one year, offered by Miss Urquhart to the woman-student who passes highest, among members of the St George's Oral and Correspondence Classes, in the Arts Preliminary Examination in October. For further information apply to the Secretary, St George's Classes, 5 Melville Street, Edinburgh.

55-58. *The Buchanan Society give Four Bursaries* annually in Arts and Science, open to suitable young men of the names of Buchanan, M'Millan, M'Auslan, M'Wattie, and Risk. The Examination Papers are of equal value for full marks in both Arts and Science subjects, and the four competitors who have the highest marks get the Bursaries, provided a satisfactory standard of proficiency is attained. They may therefore be given all in Arts or all in Science. The Arts Bursaries are of the value of £30 annually, tenable for four years, under certain conditions. The Science Bursaries are of the value of £35 annually, tenable for three years, but may be extended to four years, under conditions similar to the Arts ones. For rules and further particulars apply to Geo. Y. Strang Watkins, 186 West George Street, Glasgow, *Secretary;* or to Geo. S. Buchanan, 85 Candleriggs, Glasgow, *Treasurer.*

59. *Upper Ward of Lanarkshire Bursary.* Apply to Mr R. Brown, C.A., 23 St Andrew Square, Edinburgh.

FOR STUDENTS ENTERING THE SECOND SESSION IN ARTS.[1]

See Time-Table of Examinations.

1. *Tyndall Bruce Bursary*, £35 a-year, for three years.

The subjects of examination are Latin, Greek, and Mathematics.

The following subjects are prescribed for the examinations in Latin and Greek:—*Latin*—Virgil, *Aen.*, iv., v.; Horace, *Odes*, iv.; Tacitus, *Histories*, ii. *Greek*—Homer, *Odyssey*, i. and ii.; Euripides, *Iphig. in Aulis*; Thucyd., B. iii. Latin and Greek prose composition, and translation from books not prescribed.

Names of Candidates to be entered on or before 17th September.[1]

2, 3. *Two Spence Bursaries*,[2] each of the annual value of £30 for first year and £40 for second year of tenure, open to Students who have studied in the University of Edinburgh, at the beginning of their second session in a three years' curriculum, and of their third session in a curriculum of four years. The Examination is in Latin, Greek and Mathematics, and will be held at St Andrews in the end of September or beginning of October. Apply to Mr Henry A. Pattullo, Solicitor, 1 Bank Street, Dundee, Factor to the Trust.

FOR STUDENTS ENTERING THE THIRD SESSION IN ARTS.[1]

See Time-Table of Examinations.

1. *Horsliehill Scott Bursary*, of £33, 6s. 2d. for two years (under deduction of expenses).

2. *Harrison Bursary*, £33, 5s., for two years (under deduction of expenses).

The subjects of examination for *Third* Session Bursaries are Classics, Mathematics, and Logic (with Psychology and History of Philosophy).

The following subjects are prescribed for the examination in Classics:—*Latin*—Virgil, *Aen.*, iv., v.; Horace, *Satires*, i.; Cicero, *Pro Murena*. *Greek*—Euripides, *Iphig. in Aulis;* Thucyd., B. iii. Latin and Greek prose composition, and translation from books not prescribed.

No special books prescribed for Mathematics, or for Logic with Psychology and History of Philosophy. Candidates should revise the lectures and text-books in these classes.

Names of Candidates to be announced at the *Matriculation Office, University, Edinburgh*, not later than the 17th September 1897.[1]

"Bursars in the Faculty of Arts must annually attend at least two of the Classes necessary for the Degree of Master of Arts, and must present themselves at the Examinations necessary for that Degree.

"Each Bursar must present a Certificate, signed by the Dean, attest-

[1] See footnotes 1 and 2, page 179.
[2] The regulations may be altered before the date of the competition.

ing his regular attendance on the proper Classes in the Faculty of Arts, on each occasion on which he applies to the Factor for a payment."

Certificates, in terms of this regulation, will be given to Bursars, by the *Dean of the Faculty of Arts*, after 15th November; also at the end of the Session. In applying to the Dean for the Certificate in November, Bursars must present their Class Cards for the Session; and at the end of the Session they must present certificates from the Professors that they have attended with regularity and made progress in their studies. Payments are made by the University Factor, Mr Henry Cook, W.S., 61 North Castle Street, Edinburgh, on and after 15th November for the Martinmas payments, and on and after 18th May for the Whitsunday payments,—between 10 and 3 o'clock.

N.B.—*Bursars, Scholars, and Fellows who desire to resign should at once announce this to the Factor. They must apply to the Factor for the instalments due to them within three months after they have become payable, otherwise they will be regarded as having resigned.*

G. CHRYSTAL, LL.D.,
Dean of the Faculty of Arts, and
Professor of Mathematics.

Faculty of Science.

Dean—PROFESSOR GEIKIE, D.C.L., LL.D.

Students who do not intend to graduate may attend any of the Classes on payment of the Matriculation and the Class Fees, without having passed any Preliminary Examination. Attendance on any Class with a view to Graduation in Pure Science will not qualify unless the whole Preliminary Examination has been previously passed. Those who intend to graduate in Engineering or in Agriculture must pass the Preliminary Examination before they present themselves for any part of the First Science Examination, but not necessarily before entering on the Curriculum. The Classes in the Faculty, except a few in which arrangements have not yet been made, are now open to women.

Programme of Classes.

WINTER SESSION, 1897-98.

The Classes meet daily (Saturdays excepted), unless otherwise stated:—

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1]
Junior Mathematics...	12 Oct., 12 o'cl.	Prof. Chrystal	£3 3
Senior Mathematics[4]..	12 Oct., 9 ,,		3 3
Mathematics (Intermediate Honours)	13 Oct., 11 ,,		3 3
Do. (Advanced Honours).....	13 Oct., 10 ,,		3 3
Zoology (Elementary)	12 Oct., 12 ,,	Prof. Ewart	4 4
Practical Zoology (Elementary).	12 Oct., 11 ,,		2 2[2]
Advanced Zoological Laboratory ...	... ...		...
Morphology of Vertebrates (with Laboratory work)	13 Oct., 2 ,,	J. Beard, D.Sc...	3 3[2]
Comparative Embryology.....	11 Jan., 2 ,,		3 3[3]

[1] Fees for second and subsequent attendances, see page 195.
[2] Besides charge of 10s. for Laboratory Expenses.
[3] Five Shillings University Entrance Fee for non-matriculated Students.
[4] The first half up to Christmas qualifies as a First Half-Course, and the second half from Christmas to the end of the Session as a Second Half-Course. *Any* First Half-Course, along with *any* Second Half-Course, taken subsequently, qualifies as a full Course for Graduation.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1] £	s.
Botany (Advanced) ...	12 Oct., 11 o'cl	Prof. B. Balfour	3	3[2]
Prac. Bot. (Advanced)	12 Oct., 11 ,,		2	2[2]
Plant Physiology	10 Jan., 10 ,,	W. G. Smith, B.Sc., Ph.D...	2	2[2]
Natural Philosophy...	12 Oct., 11 ,,	Prof. Tait.....	3	3
Do. (Advanced Honours).	20 Oct., 12 ,,		3	3
Physical Laboratory .	18 Oct., 10 ,,		2	2
Natural Philosophy (Intermediate Honours Course) (*Mon., Wed., Fri.*)	13 Oct., 9 ,,	Cargill G. Knott, D.Sc.....	3	3
Dynamics (Advanced Science Course) (*Mon., Wed., Fri.*)	13 Oct., 10 ,,		3	3
Chemistry	12 Oct., 10 ,,	Prof. Crum Brown	4	4
Practical Chemistry...	1 Dec., 11&2,,		3	3
Chemistry (Advanced Course) ..	4 Jan., 4 ,, (*Tu. Wed. & Th*)		2	2
Chemical Labor.[5].....	... ...			
Astronomy (*Mon., Tues. Wed. Thurs.*)	13 Oct., 11 ,,	Prof. Copeland..	3	3
Anatomy	12 Oct., 1 ,,	Prof. Sir William Turner.....	4	4
Practical Anatomy....	1 Oct., *daily.*		3	3
Regional Anatomy (Anatomical Demonstrations).....	12 Oct., 4 o'cl.	David Hepburn, M.D.....	2	2[3]
Physiology.....	12 Oct., 10 ,,	Prof. Rutherford	4	4
Practical Physiology..	13 Oct., 3 ,,		3	3
Do. do. (Advanced)	17 Oct., 11 ,,	E. W. Carlier, M.D.	4	4
Geology & Mineralogy	12 Oct., 4 ,,	Prof. Geikie.....	4	4
Prac. Class[4] (*Mon., Wed., & Fri.*) ...	13 Oct., 2-4 ,,		3	3[4]
Engineering	2 Nov., 9 ,,	Prof. Armstrong	4	4
Sanitary Engineering and Building Construction	9 Nov., 10 ,,		2	2

[1] Fees for second and subsequent attendances, see page 195.
[2] Besides Garden Fee of Five Shillings.
[3] When taken along with Practical Anatomy, £1, 1s.
[4] First part of this Course up to Christmas qualifies as a Half-Course for Graduation in Arts. Fee, £2, 2s.
[5] For fees, &c., see page 197.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1]
Engineering (short additional Course: Applied Mechanics)	13 Oct., 9 o'clock.	W. H. Kerr, M.A., B.Sc.	£ s. 1 1[6]
Geometrical & Mechanical Drawing	1 Nov. 10 to 2 ,,	W. H. Kerr, M.A., B.Sc.	2 2
Drawing in its relation to Public Health	... ..		2 2
Agriculture and Rural Economy	12 Oct., 9 ,,	Prof. Wallace	4 4
Economics as applied to Agriculture (*The Political Economy Class in Arts till Christmas*)	12 Oct. 5 ,,	Prof. Nicholson	2 2
Agricultural Chemistry	12 Oct. 3 ..	A. P. Aitken, D.Sc.	3 3
Do. Advanced Laboratory Class	12-3 .. (*Tu. & Th.*)		4 4[5]
Forestry	12 Oct., 10 ,,	Col. Bailey, R.E.	3 3[2]
Agricultural Entomology (Twenty Lectures)	4 Jan., 2 ,,	W. Fream, LL.D., B.Sc. (Lond.)	2 2[2 3]

SUMMER SESSION, 1898.

The Classes meet daily (Saturdays excepted), unless otherwise stated.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1]
Senior Mathematics (First Graduation Half-Course)[4]	3 May, 11 o'cl.	Chas. Tweedie, M.A., B.Sc.	£ s. 2 2
Senior Mathematics (Second Graduation Half-Course)[4]	3 May, 12 ,,		2 2
Honours Mathematics (Half - Graduation Course)	3 May, 10 ,,		2 2

[1] Fees for second and subsequent attendances, see page 195.
[2] Five Shillings University Entrance Fee for Non-Matriculated Students, unless taken with a view to Graduation in Agriculture.
[3] Free to all present and past Students of the Agriculture Class.
[4] For Regulations as to Half-Courses, see footnote 4, page 191.
[5] On payment of this fee, students who have already attended the Ordinary Class will be readmitted to that class.
[6] No Fee for Students of class of Systematic Engineering.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1]
Physics (*mainly for Students of Medicine*)	3 May, 12 o'cl.	Prof. Tait..... ...	£3 3
Physical Laboratory ...	3 May, 10 ,,	Prof. Tait and Assistant.....	2 2
Elementary Dynamics	3 May, 9 ,,	C. G. Knott, D.Sc.	2 2
Advanced Experimental Physics.....	3 May, 10 ,,	W. Peddie, D.Sc.	2 2
Chemistry (Organic).	3 May, 1 ,,	Prof. Crum Brown.....	2 2
Do. (Practical).....	3 May, 2 ,,		3 3
Chemical Laboratories[5]	... ...		...
Chemical Theory (*Mon. & Fri.*)	6 May, 10 ,,	Leonard Dobbin, Ph.D.	1 1
Mineralogy and Crystallography	4 May, 9 ,,	Hugh Marshall, D.Sc.....	2 2
Astronomy (Advanced) (*Tues. & Fri.*).....	3 May, ,,	Prof. Copeland....	2 2
Practical Anatomy.....	3 May, *daily.*	Prof. Sir W. Turner and Demonstrators	2 2
Anthropology.....	10 May, 2 o'cl.		2 2[2]
Regional Anatomy (Anatomical Demonstrations).....	3 May, 11 *daily.*	David Hepburn, M.D.....	...
Practical Physiology...	3 May, *several hours.*	Prof. Rutherford..	3 3
Do. (Advanced Class)	*In Winter only.*		4 4
Geology (*Mon., Wed., Fri.*).....	4 May, 4 o'cl.	Prof. Geikie,....	3 3[3]
Field Demonstrations on *Saturdays.*	... ...		...
Petrology (*Mon., Wed., Fri.*).....	4 May, 10-12 ,,	J. S. Flett, M.A., B.Sc., M.B., C.M.	2 2
Zoology (Elementary).	3 May, 12 ,,	Prof. Ewart.....	4 4
Do. (Elementary Practical).....	3 May,		2 2[4]

1 Fee for second or subsequent attendances, see page 195.
2 When taken with Practical Anatomy, £1, 1s.
3 This Course qualifies as a Half-Course for Graduation in Arts.
4 Besides charge of 10s. for Laboratory Expenses.
5 For Fees, &c., see page 197.

Classes.	Days of Opening and Hours of Attendance.	Professors and Lecturers.	Class Fees.[1]
			£ s.
Advanced Zoology..... (Embracing a Course on Comparative Morphology of the Invertebrata and an Advanced Laboratory Course)	3 May,[3]	Prof. Ewart.....	3 3[2]
Natural History Laboratory.....	3 May, 2 o'cl.		6 6
Invertebrate Zoology ..	3 May,[4] ,,		2 2
Do. (with Lab. Work)			3 3[4]
Botany.....	3 May, 8 ,,		4 4[4]
Practical Botany.....	3 May, 9 ,,	Prof. Bayley Balfour.....	2 2[4]
Field Demonstrations on *Saturdays*	... ...		...
Plant Physiology.....	4 May, 2 ,,	W. G. Smith, B.Sc., Ph.D.	2 2[4]
Engineering Field-Work (Surveying, Levelling, &c.)[5].....	... ...	Prof. Armstrong...	3 3

FEES FOR SECOND OR SUBSEQUENT ATTENDANCES.

1. *Lecture Courses*, which qualify alike for Graduation in Science and Medicine: Second attendances on £4, 4s. Courses, £3, 3s.; on £3, 3s. Courses, £2, 2s.; subsequent attendances free: second attendances on £2, 2s. Courses, no reduction; third or subsequent attendances, £1, 1s. Perpetual Tickets for initial payment, £6, 6s. No reduction for re-attendances on Practical Classes or Laboratories.

2. *Lecture Courses* which qualify both for Arts and Science: Second attendances on £4, 4s. Courses, £3, 3s.; third or subsequent attendances, £1, 1s.; second attendances on £3, 3s. Courses, £2, 2s.; third or subsequent attendances, £1, 1s.; second attendances on £2, 2s. Lecture Courses (not being Honours Half-Courses for M.A.), £1, 11s. 6d.; third or subsequent attendances, £1, 1s.; Lecture Courses, when fee for first attendance is less than £2, 2s., no reduction. Full Courses (being also Honours Courses for M.A.), second attendances, no reduction; third or subsequent attendances, £2, 2s.; second attendances on £2, 2s. Courses (being also Half Honours Courses for M.A.), no reduction; third or subsequent attendances, £1, 1s.

3. *Lecture Courses* not included in the curricula in Arts or Medicine: Second attendances on £3, 3s. Courses, no reduction; third or sub-

[1] Fees for second or subsequent attendances, see above.
[2] Besides charge of 10s. for Laboratory Expenses.
[3] At hours to be arranged.
[4] Besides Garden Fee of 5s.
[5] Given in alternate Summers. Next Course in 1899.

sequent attendances, £2, 2s. ; on £2, 2s. Courses, second attendances, no reduction ; third or subsequent attendances, £1, 1s. On Agriculture and Rural Economy, second attendance, £3, 3s. Perpetual Ticket by initial payment, £6, 6s.

4. *Courses in Engineering and Drawing.* No reduction for second or subsequent attendances.

5. *Practical Classes and Laboratory Courses.* No reduction for re-attendances.

MATRICULATION FEES, &c. See pages 27-30.

The following means are afforded for Practical Instruction:—

I. LABORATORIES.

PHYSICAL LABORATORY, affording Students a practical knowledge of the construction and use of physical apparatus, and the mode of conducting experimental inquiries, daily from 10 to 3, under Professor Tait.

GEOLOGICAL AND PETROLOGICAL LABORATORY, for practical instruction in the study of Minerals, Rocks, and Fossils, and the methods of plotting and drawing geological maps and sections, on Monday, Wednesday, and Friday from 2 to 4, under Professor Geikie.

ENGINEERING DRAWING CLASS ROOM, daily during the Winter Session, from 10 to 2, for instruction in drawing and drawing-office routine.

THE ENGINEERING (FULTON) LABORATORY, open on fixed days during the Winter Session, for practical instruction in the processes employed by the Engineer in the Experimental Determination of the Physical and Economical Constants of Materials, Machines, and Prime Movers, and in the Practical Applications of Electricity.[1]

PRACTICAL INSTRUCTION IN OFFICE AND FIELD-WORK, daily (in alternate years), in connection with the Summer Course on Surveying, Levelling, &c., from 11 to 4.

AGRICULTURE DEPARTMENT in the Museum of Science and Art, open daily to Students attending the Agriculture Class. Excursions to farms are made on Saturdays. The leading agricultural newspapers are left for the use of Students in the Agriculture Lecture Room.

ROYAL OBSERVATORY, open to Students of Astronomy on Friday evening, from 8 P.M.

ROYAL BOTANICAL GARDEN LABORATORY at the ROYAL BOTANIC GARDEN, open daily for the practical study of plants and for research, under the Professor, assisted by James Adam Terras, B.Sc., and J. H. Burrage, B.A.

PHYSIOLOGICAL LABORATORY, for Physiological Research, and the study of Practical Physiology, open daily, under the Professor, assisted by E. W. Carlier, M.D., C.M., B.Sc. ; T. H. Milroy, M.D., B.Sc. ; and A. C. Sturrock, M.A., M.B.

[1] Fees—Winter Session, £10, 10s. ; Summer Session, £6, 6s.

CHEMICAL LABORATORIES (distinct from the Practical Chemistry Room), for forty Students, fitted with all necessary apparatus for chemical analysis and research, open daily, under the Professor, assisted by Leonard Dobbin, Ph.D.; Hugh Marshall, D.Sc.; and J. P. Longstaff.[1]

DISSECTING ROOMS, open daily under Professor Sir William Turner, assisted by David Hepburn, M.D.; E. J. H. Fraser, M.B., C.M.; Rhodes Haygarth, M.B., C.M.; and other assistants. Opens 5th October 1897 and 3rd May 1898.

NATURAL HISTORY LABORATORIES, for research and for study of the structure and development of Invertebrate and Vertebrate forms, open daily, under the Professor, assisted by J. Beard, D.Sc.[2]

PUBLIC HEALTH LABORATORY, for Hygienic investigation, comprising a Chemical, a Bacteriological, and a Meteorological Department, open daily, under the Professor, assisted by Charles Hunter Stewart, M.B., C.M., D.Sc., and James Buchanan Young, M.B., C.M., D.Sc. Opens 5th October 1897 and 3rd May 1898.[2]

MUSEUMS. See pages 51-54.

Courses of Lectures.

1897-1898.

I.—PURE SCIENCE.

I. MATHEMATICS.

PROFESSOR CHRYSTAL.

CHARLES TWEEDIE, M.A., B.Sc., *Lecturer.*

For Synopses of Lectures, see under Faculty of Arts.

II. ZOOLOGY, including COMPARATIVE ANATOMY.

PROFESSOR EWART.

For Synopses of Lectures on Zoology and of Courses on Practical Zoology, see under Faculty of Medicine.

COMPARATIVE EMBRYOLOGY.

J. BEARD, D.Sc., *Lecturer.*

The Course consists of Lectures and Practical Work.

Lectures.—The following subjects will be dealt with:—Con-

[1] Fees for Chemical Laboratory.—*Whole-day*—Winter Session, £10, 10s., Oct.-Dec., Jan.-March: or Summer Session, £5, 5s. *Half-day*—Winter Session, £6, 6s., Oct.-Dec., Jan.-March: or Summer Session, £3, 3s. Preference will be given to Students in the above order. Students who are not Matriculated may attend the Chemical Laboratory on payment of the entrance fee of 5s. in addition to the Laboratory fees.

[2] Fees—Winter Session, £10, 10s.; Summer Session, £6, 6s.

jugation and sexual reproduction, the maturation, &c., of the egg and spermatozoan, the modes of formation of the germinal layers in a series of selected types, the development of Scyllium or Raja, Amphioxus and Rana as a basis for general Vertebrate Embryology, the organogeny of the chief systems of organs in the Vertebrata, the evolution and comparative development of the placenta. A few lectures will be given on the general principles and theory of Comparative Embryology, the recapitulation theory, and the nature of larval forms.

Practical Work.—Each member of the Class will have an opportunity of preparing for himself and studying a series of preparations to illustrate the development of Salmo, Rana, Gallus, and other forms. In addition, an extensive series of preparations of Raja, Scyllium, Torpedo, and Lacerta, &c., and of certain Invertebrate forms will be available.

In the Laboratory Work members of the Class may confine their studies to one particular type, or to some selected branch, such as Mammalian Embryology.

Books for reference.—Marshall's "Vertebrate Embryology"; Hertwig's "Embryology of Man and the Higher Vertebrates"; Korschelt und Heider's "Vergleichende Embryologie der Wirbellosenthiere"; Willey's "Amphioxus"; and E. B. Wilson's "The Cell."

MORPHOLOGY OF THE VERTEBRATA.

A Course of twenty-five Lectures on the Morphology of the Vertebrata; the nervous system and its sense organs and the genito-urinary system receiving particular attention.

As far as time permits the question as to the morphological nature of the vertebrate head and skeleton will be discussed.

III. BOTANY.

PROFESSOR BAYLEY BALFOUR.

For Synopsis of Lectures, see under Faculty of Medicine.

PLANT PHYSIOLOGY (ADVANCED)

W. G. SMITH, B.Sc., PH.D., *Lecturer.*

This Course will be given at the Royal Botanic Garden both in the Winter and the Summer Sessions. It will consist of

Lectures and Practical Demonstrations, supplementary to the Lectures of the Professor. The Processes in Plant Nutrition, Assimilation, and Respiration, the Irritability and Movements of Plant Organs, and the Physiology of the Reproductive Process in Plants will be treated.

IV. NATURAL PHILOSOPHY.

PROFESSOR TAIT.

C. G. KNOTT, D.SC., *Lecturer on Applied Mathematics.*

ELEMENTARY DYNAMICS.

C. G. KNOTT, D.SC., *Lecturer.*

ADVANCED EXPERIMENTAL PHYSICS.

WILLIAM PEDDIE, D.SC., *Lecturer.*

For Synopses of Courses, see under Faculty of Arts.

V. CHEMISTRY.

PROFESSOR CRUM BROWN.

For Synopses of Courses, see under Faculty of Medicine.

ORGANIC CHEMISTRY.

This Class meets daily during the Summer Session at 1 P.M.

ADVANCED CHEMISTRY.

Course of twenty-five Lectures to begin after Christmas. Subject for 1897-98, "Selected Chapters in Inorganic Chemistry."

CHEMICAL THEORY.

LEONARD DOBBIN, PH.D., *Lecturer.*

The subjects will vary from year to year. They will include historical matters, and discussions of the more important chemical theories which are at present productive or which have been superseded. The Class will meet on Mondays and Fridays at 10 A.M., during the Summer Session. The Subjects proposed for 1898 are, "Stereochemistry; and History of the Reformation of Chemistry by Lavoisier."—Fee, £1, 1s.

MINERALOGY AND CRYSTALLOGRAPHY (ADVANCED).

HUGH MARSHALL, D.Sc., *Lecturer.*

Daily, at 9 A.M., beginning Wednesday, 4th May. Fee, £2, 2s.

The earlier part of the Course will be on Physical Crystallography generally, including the optical and other properties of crystalline substances and the geometrical properties of crystals. The latter section will deal specially with minerals, with those parts of Systematic Mineralogy not included in the earlier section, and with the Descriptive Mineralogy of minerals of most importance from a Geological or a Chemical point of view. Some of the meetings will be devoted to Elementary Practical Work and Demonstrations.

VI. ASTRONOMY.

PROFESSOR COPELAND.

For Synopsis, see under Faculty of Arts.

An Advanced Practical Course, consisting of 30 meetings of two hours each, may be held in Summer.

PRACTICAL ASTRONOMY (ADVANCED SUMMER CLASS).

This Class will only be held if a sufficient number of Students present themselves. It will meet at the Royal Observatory, Blackford Hill, on Tuesdays and Fridays in the Summer Session. Evening hours will also be arranged to suit the progress of the work.

VII. HUMAN ANATOMY, including ANTHROPOLOGY.

PROFESSOR SIR WILLIAM TURNER.

For full Synopsis of Lectures on Anatomy and for Course of Practical Anatomy, see under Faculty of Medicine.

ANTHROPOLOGY.

If a sufficient number of Students express their intention of selecting Human Anatomy, including Anthropology, as a subject for the Degree of B.Sc., the Professor of Anatomy will deliver, during the Summer Session, a course of twenty-five Lectures on Physical Anthropology. Fee, £2, 2s.; or for Students who take the Summer Course of Practical Anatomy, £1, 1s.

VIII. PHYSIOLOGY.

PROFESSOR RUTHERFORD.

For Synopsis of Lectures, see under Faculty of Medicine.

ADVANCED PRACTICAL PHYSIOLOGY.

E. W. CARLIER, M.D., B.Sc., *Lecturer.*

This course is devoted to Experimental and Chemical Physiology and Histology of a more advanced nature than that of the ordinary course of Practical Physiology.

1. The Experimental part embraces the Experimental Physiology of muscle and nerve; the heart and circulation; respiration; central nervous system; organs of sense and voice.

2. The Chemical part embraces the physiological chemistry of the blood, including the spectroscopic study of haemoglobin and its derivatives; bile; digestive fluids and their actions; milk; muscle.

3. The Histological part embraces the advanced study of the structure of various tissues and organs as revealed by recent methods of research of a refined character.

This course is adapted for those preparing for examinations in Natural Science and Honours Examinations in Physiology, and for those who may afterwards desire to prosecute Physiological Research.

The Class meets for two hours twice a week in the Winter Session, beginning in October and extending to March.

IX. GEOLOGY, including MINERALOGY.

PROFESSOR GEIKIE.

Winter Course.

I. CLASS OF GEOLOGY AND MINERALOGY.—Daily, at 4 o'clock. The Course embraces :—

1. *The History of Geology*—An outline of the growth of the science from the time of the early cosmogonies downwards.

2. *Dynamical Geology*—A discussion of the nature and causes of geological changes effected on the surface and within the interior of the earth.

3. *Mineralogy*—An account of the physical and chemical

characters of minerals, and a description of some of the more important and typical species in the various mineral groups.

4. *Petrology*—A description of the various families of rocks.

5. *Structural Geology*—A description of the geological structure and relations of rock-masses to each other.

6. *Palæontological Geology*—An account of the nature and use of fossils in geological inquiry.

7. *Palæontology*—A description of the more important types of life represented by fossils.

8. *Historical Geology*—The history of the successive geological periods.

9. *Physiographical Geology*—An inquiry into the origin of the present outlines of the earth's surface.

Text-Books—"Outlines of Geology," by the Professor (*Stanford*); Hatch's "Mineralogy" (*Whittaker*); Hatch's "Petrology" (*Sonnenschein*) or Harker's "Petrology for Students" (*Cambridge University Press*). More detailed works of reference, most of which are in the College Reading-Room, are recommended for each branch of the lectures.

II. Class of Practical Mineralogy and Geology.—Two hours (2 to 4), on Mondays, Wednesdays and Fridays, under superintendence of the Professor. This Course, up to Christmas, is a half-Course qualifying for Graduation in Arts.

III. Field Demonstrations.—Short excursions are made on Saturdays to places of geological interest near Edinburgh, when the Class Lectures are illustrated by demonstrations in the field, and practical instruction is given in Geological Surveying. At the close of the Session (usually in the last week of April) an excursion, of about a week, may be made for the purpose of examining the structure of a more distant district.

These Field Demonstrations are open to Students attending either the Class Lectures or the Practical Class.

Adjoining the Class-room is a small Museum exhibiting the characters of minerals and rocks, and the typical fossils of the different geological systems.

Summer Course.

The following subjects are dealt with in this Course :—

1. *Petrology.*—(The lectures are illustrated by demonstrations in the Laboratory and the Class Museum.)

2. *Palæontological Geology.*—(Class Museum, see above).

3. *Structural Geology.*—Under this head *Dynamical Geology* is also discussed in more or less detail.

4. *Geological Surveying.*

5. *Economic Geology: application of Geology to Mining, Engineering, Agriculture, Public Health, &c.*

6. *Physiographical Geology.*

Structural and *Field Geology* form the principal portion of this Course, but no previous knowledge of Geology is required of the student—the elementary principles of the science being set forth both in the lecture-room and the field. The Class meets on Mondays, Wednesdays, and Fridays at 4, and a series of practical lessons on the study of rocks will be given at the beginning of the Session on Tuesdays and Thursdays at the same hour. The Saturdays are devoted to field demonstrations, when the mode of geological mapping and section drawing is explained and illustrated. This Course is a Half-Course qualifying for Graduation in Arts.

PETROLOGY.

J. S. FLETT, M.A., B.Sc., M.B., C.M., *Lecturer.*

Lectures and Practical Work, on Mondays, Wednesdays, and Fridays, from 10 to 12, in Summer.

II.—APPLIED SCIENCE.

I.—ENGINEERING.

I. MATHEMATICS.

PROFESSOR CHRYSTAL.

CHARLES TWEEDIE, M.A., B.Sc., *Lecturer.*

For Synopses of Lectures, see under Faculty of Arts.

II. NATURAL PHILOSOPHY.

PROFESSOR TAIT.

For Synopsis of Lectures, see under Faculty of Arts.

III. CHEMISTRY.

PROFESSOR CRUM BROWN.

For Synopsis of Courses, see under Faculty of Medicine.

IV. DRAWING AND MENSURATION.

W. H. KERR, M.A., B.Sc., *Lecturer.*

CLASS OF DRAWING (GEOMETRICAL, ENGINEERING, AND ARCHITECTURAL), AND OF MENSURATION.—Students may attend at any time between 10 A.M. and 2 P.M. each day.

All Students are recommended to take the Classes in Engineering and Drawing together.

The Class in Drawing may also be attended with advantage by those who propose subsequently to attend the Class in Engineering, as Students should be able to readily understand mechanical diagrams, and to apply the graphic methods of calculation frequently employed by Engineers. The Class will be found useful also to those who propose to become architects or surveyors.

A course of instruction has been specially arranged to meet the requirements for the Degree of B.Sc. in Public Health.

SYNOPSES.

1. *Ordinary Class.*

The work is arranged so as to form a two-years' Course, and will consist of Lectures and Practical Instruction in Drawing. The Courses are described as "Junior" and "Senior"; and, though not imperative, it is desirable that they should be taken in their natural order.

Junior Course:—Plane Geometrical Drawing—Construction of Curves—Design of Toothed Wheels and Gearing—Graphic Methods of determining Stress in Structures—*Loci* of Points in Link-work—Diagrams of Velocity, Acceleration, and Energy.

Senior Course:—Solid Geometry—Interpenetration and Development of Surfaces and Solids—Isometric Projection—Perspective—Structural and Machine Drawing—Rough Sketching of Machines, &c., and the Preparation therefrom of Working Drawings—Design of Structures in Masonry, Timber, Steel, and Iron. Roofs, Bridges, Skew Arches, &c.—General Machine Design.

2. *Special Class for Public Health Students.*

The Course will include the following subjects:—Scales and

their Uses—Estimation of Areas and Volumes—Elements of Plane and Solid Geometry, and their application to the making of Structural Drawings from Models and Figured Sketches.

V. ENGINEERING.

PROFESSOR ARMSTRONG.

Winter Session.

I. CLASS OF ENGINEERING.—The object of the Course will be to show the practical application of Science to some branches of Engineering. The Lectures, combined with Laboratory instruction, will form a Two Years' Course, so arranged that Students can enter the Class at the beginning of either year. The following are the subdivisions of the complete Course, a part only of each subdivision being dealt with each year:

1. Applied Mechanics; 2. One Branch of Civil Engineering; 3. One Branch of Mechanical Engineering; 4. Examples of the Application of Machinery to Manufacturing Purposes; 5. Laboratory instruction in connection with one of the foregoing.

Synopsis of the Course for the present Session:—

A

1. Hydrostatics and Hydrokinetics.
2. Rivers and Canals, Harbours, Docks, and Breakwaters.
3. Waterworks for the Supply of Towns.
4. Drainage, Sewage, and Sewage Disposal, Ventilation, and other Sanitary Works.
5. Water Wheels, Turbines, and Pumps.
6. Efficiency of various modes of transmitting power.
7. Theory of Heat Engines.

B.

8. The Steam Engine and Steam Engine Testing, with Laboratory Demonstrations, under the superintendence of the Professor.

Four Examinations are held during the Session; and each week, unless there be an Examination, a problem paper is set to be worked at home. The questions proposed are such as are met with in the practice of Engineering; and the answers,

being returned to the Students annotated and corrected, form a body of Examples for subsequent reference.

There is also a Tutorial Class held weekly, at which the questions set in the problem paper of the previous week are discussed and explained.

Engineering Works and Factories are, from time to time, visited by the Class, under the direction of the Professor.

The attention of Students proposing to follow the foregoing course is specially directed to the following Class (II.), one attendance at which, though optional, is strongly recommended.

II. Additional Class. — A short preliminary course in General Mechanics is given, *without additional fee*, for the benefit of those entering the Class of Systematic Engineering with an imperfect knowledge of Mechanical principles. This Class, taught by an assistant, will meet five days a week for about a month, commencing on the same day as the General Science Classes open.

III. A Course of Instruction (Theoretical and Practical) in Sanitary Engineering and Building Construction designed for Candidates for Degrees in Public Health, consisting of about fifty Lectures.

IV. The Fulton Engineering Laboratory.—Students here receive practical instruction in the processes employed by the Engineer in the experimental determination of the physical and economical constants of materials, machines, and prime movers, and in the practical application of electricity.

Summer Session.

V. Engineering Field-Work.—A course of Practical Instruction in Surveying, Levelling, Setting Out, and Calculation of Quantities, is given in alternate years.

The course consists of lectures, and of practical work, as undertaken in the field and in the office, and occupies the whole of each day for about three weeks. The hours of instruction thus correspond to an ordinary Course extending over a much longer period. The Class will be next held in 1898.

Course of Study.

The following course is recommended for Students preparing for the Degree of B.Sc. in Engineering :—

1st Year. — Mathematics [Intermediate Honours Class (Winter), or Advanced Class (Summer)], Geometrical Drawing and Graphics, Chemistry (or Natural Philosophy), Engineering Field-Work (Summer Session).

2nd Year. — Engineering and Natural Philosophy) or Chemistry), Laboratory (Chemical or Physical), Engineering, Engineering and Mechanical Drawing.

3rd Year.—Natural Philosophy (Advanced Class), Engineering, Optional Course.

In some cases a modification of the above may be desirable.

The Engineering Field-Work Class may be taken during whichever of the Summers it is held.

VI. DYNAMICS.

C. G. KNOTT, D.Sc., *Lecturer.*

As a preparation for the Course described below, Students of Engineering are advised to take the Summer Half-Course on *Elementary Dynamics*, either before or after passing the First B.Sc. Examination in Natural Philosophy. For Synopsis, see Courses in Faculty of Arts.

The Advanced Science Course on Dynamics, of fifty Lectures, by the Lecturer on Applied Mathematics, is adapted for Engineering Students. In the treatment of the subject practical applications and, in particular, graphical methods of solution will receive attention ; while the simpler processes only of the differential and integral calculus will be used. The Course will include the Kinematics, Kinetics, and Statics, of particles, rigid solids, flexible cords, and perfect fluids ; and the more elementary parts of Strains and Elasticity.

Books recommended. — The simpler sections of Tait's "*Dynamics*" ; Rankine's *Applied Mechanics.*

VII. GEOLOGY AND MINERALOGY.

PROFESSOR JAMES GEIKIE.

For Synopsis of Lectures, see Summer Course under Pure Science.

II.—PUBLIC HEALTH.

I. LABORATORY WORK.

PROFESSOR SIR HENRY D. LITTLEJOHN.

See Schedules, pages 237-239.

II. CLINICAL INSTRUCTION regarding Fevers and Infectious Diseases during three months in a recognised Hospital.

III. INSTRUCTION IN MENSURATION AND DRAWING.—Three months under a recognised Teacher.

Special Course by Professor Armstrong in Sanitary Engineering and Drawing, see under Engineering.

IV. PHYSICS.

PROFESSOR TAIT.

CARGILL G. KNOTT, D.Sc., *Lecturer.*

For Synopses, see under Faculties of Arts and Medicine.

V. GEOLOGY.

PROFESSOR GEIKIE.

For Synopses of Courses, see under Pure Science.

VI. PUBLIC HEALTH.

(*a*) PRACTICAL SANITATION, SANITATION, AND HYGIENE.

PROFESSOR SIR HENRY D. LITTLEJOHN.

For Synopsis of Courses, see under Faculty of Medicine.

(*b*) SANITARY ENGINEERING, BUILDING CONSTRUCTION, ETC.

PROFESSOR ARMSTRONG.

Special Course, see under Engineering.

III.—AGRICULTURE.

I*a*. MATHEMATICS.

PROFESSOR CHRYSTAL.

CHARLES TWEEDIE, M.A., B.Sc., *Lecturer.*

Senior Class, as for M.A. Synopses, see Faculty of Arts.

I*b*. ZOOLOGY.

PROFESSOR EWART.

For Synopsis of Lectures, see under Faculty of Medicine.

Ic. BOTANY.

PROFESSOR BALFOUR.

For Synopsis of Lectures, see under Faculty of Medicine.

II. NATURAL PHILOSOPHY.

PROFESSOR TAIT.

For Synopsis of Lectures, see under Faculty of Arts.

III. CHEMISTRY.

PROFESSOR CRUM BROWN.

For Synopsis of Lectures, see under Faculty of Medicine.

IV. AGRICULTURE AND RURAL ECONOMY.

PROFESSOR WALLACE.

1. *Definition of Agriculture.*—Aid given by the Allied Sciences.

2. *Surface Geology.*—Formation and Classification of Soils—their Physical and Chemical Properties. Importance of Organic Nitrogen. Indications of good or bad Soils - Methods of Management and Improvement.

3. *Drainage.*—Its Practice and Advantages—Irrigation—Wet-Warping—Mixing or Top-Dressing—Claying—Marling—Chalking—Liming—Paring and Burning—Clay-Burning. The Effect on Soils of Cultivation and the Growth of Plants.

4. *Implements and Machines of the Farm.*—Importance of their proper Construction and careful Management.

5. *Steam Cultivation.*—Advantages and Disadvantages.

6. *Motive Powers Employed on the Farm.*—1st, Man : 2nd, Horse ; 3rd, Mechanical Powers (Water, Wind, Steam)—their Values and Advantages.

7. *Farm Servants.*—Labour and Wages—Day-work and Piece-work. Detailed and total costs of Horse and Hand Labour.

8. *Importance of Rotations.*—Different Rotations and reasons why they are adopted—Systems of Farming.

9. *Our Farm Crops* (including Grain, Root, Forage, and Hay Crops).—Selection and Cultivation. Prevention of Diseases.

10. *Identification of Grasses and Valuable Pasture Plants.*—Their Characteristics and Habits—Detection of Adulterations of Seeds—Regulations to protect Farmers in buying Seeds.

11. *The Management of Permanent Pasture.*—Proper Methods of making new Pasture—its After-treatment.

12. *Weeds in Pastures* and Means of Destroying them.

13. *Silage and the System of Ensilage.*—Its Advantages, &c. —Its Suitability and Unsuitability according to Locality.

14. *Manures.*—Farm-yard Manure—Mixing, Storing, and Application—great advantage as a General Manure. Special Manures and so-called Artificials—Times and Methods of their Application. Utilization of Liquid Manure and Town Sewage.

15. *Buildings and Fences.*—Construction of Fences—General Arrangement of Farm-Buildings—best Flooring and Inside Plans and Dimensions of Byres, Cattle-Sheds, Stables, &c.—Covered Yards—Ventilation—Drainage.

16. *Live-Stock.*—Cattle, Pigs, Horses, Sheep, Poultry—Breeds of each, and suitability to Local Conditions—"Principles of Breeding." Feeding and Management—Mixtures of Food. Cost of Producing a Stone of Beef, Mutton, and Pork, showing Profit.

17. *Dairying in all its Branches*, including the suitability of surrounding Conditions—Classes of Dairy Stock, and their Management—Treatment of Milk, its Sale, its Manufacture into Cheese, Butter, &c.

18. *Feeding Stuffs.*—Suitability of Common Food Substances to different Classes of Farm Stock—Purchase and disposal of the same—their Manurial Residues.

Text-Books.—Wallace's "Farm Live Stock of Great Britain," M'Connell's "Note-Book of Agricultural Facts and Figures," Fream's "Elements of Agriculture," "Rothamsted Experiments," and "Soils and their Properties."

Students are requested to consult the Professor at the beginning of the Session as to their plan of work.

Periodical visits will be made to suitable Farms. A Medal may be given for the best report on these excursions.

V. AGRICULTURAL CHEMISTRY.

A. PEEBLES AITKEN, D.Sc., *Lecturer.*

The Course comprises Lectures, Demonstrations, and Laboratory work :—

1. *The Atmosphere.*—The relation of its constituents to plant life—rain, dew, fog, and hoar frost, their causes and effects.

2. *Soils.*—Origin and formation—physical and chemical processes included in the term "weathering"—inorganic and organic constituents of soils—essential elements of fertility—work of living organisms in the soil—decay and putrefaction of vegetable matter—formation of humus—nitrification—relation of soils to air and moisture—capillarity—absorption of salts by soils—lysimetry—circumstances affecting the composition of drainage water—amelioration of soils by physical and chemical means—classification, investigation, and analysis of soils.

3. *Plants.*—Mineral and organic constituents of plants—their transformations and translocations during the life of plants from germination to maturity—respiration, transpiration, and assimilation—plant nutrition, and the specific effects of nutritive substances upon the growth and development of plants—water culture and other methods of investigating plant nutrition—meteorological conditions affecting the health and vigour of plants—sources whence plants derive their nitrogenous constituents—symbiosis—analysis of vegetable substances.

4. *Manures.*—Their classification, composition, and characteristics—specific action and suitability for different soils, climates, and crops—economic use, and the principles regulating their application—methods of conducting manurial experiments—analysis and investigation of manures—valuation of manures, and of unexhausted fertility.

5. *Crops.*—Their composition and classification—fodder crops, their relative value as food—external conditions affecting their nutritive value, preservation, and digestibility—theory of rotations—crop residues and their relation to the fertility of the soil.

6. *Animal Nutrition.*—Chief constituents of the animal body—respiration—digestion—influence of diet on the growth and health of animals—laws of flesh and fat production, and relation of food to work—nutrient ratio as a guide to feeding—animal waste—relation of food to manure—external conditions affecting the health and growth of animals—preparation of fodder—analysis and investigation of feeding stuffs.

7. *Dairy Produce.*—Composition of milk—its physical characters—diseases and sophistications to which it is liable—characteristics of its ingredients—its analysis—butter and cheese—their composition, sophistication, and analysis—scientific aspects of dairy management.

VI. GEOLOGY.

PROFESSOR GEIKIE.

Summer Course, see Pure Science; Winter, see Faculty of Arts.

VII. VETERINARY HYGIENE.

Lectures of recognised teachers of the subject.

VIII. AGRICULTURAL ENTOMOLOGY.

Course of twenty Lectures and Laboratory Demonstrations.

W. FREAM, LL.D., B.Sc., *Steven Lecturer.*

(*Free to Present and Past Students of the Agriculture Class.*)

Position of Insects in the Animal Kingdom.

Morphology and physiology of Insects, particularly in so far as such knowledge is useful in baffling attacks of insect pests. Structural modifications of the mouth, legs, and wings.

Life-history of Insects.

General principle that where the life history involves a series or cycle of changes, the measures of suppression should be directed against the weakest link in the chain. Illustrations.

Methods of insect attack, and enormous losses consequent thereon. Incidentally:—(*a*) Stage in the life-history of the insect at which it becomes actively injurious. (*b*) Period in the growth of the crop when insect injury begins. (*c*) Organs of the plant which are attacked.

Methods of *prevention*, as distinguished from *remedy*.

General methods of prevention or remedy, as distinguished from *special*. The former are, in the main, agricultural. The latter usually involve the application of specific insecticides, or the subjection of the crop to treatment distinct from ordinary agricultural operations.

Insecticides: composition and properties of the more important. Methods of application.

Mechanical appliances for the distribution of insecticides.

Inter-relationship of economic entomology and systematic botany.

Natural enemies of insects; particularly (*a*) insectivorous mammals and birds, (*b*) other insects, (*c*) parasites.

Classification of insects, directed especially to the means of identifying injurious insects in their several stages.

Characters of the natural orders of insects illustrated by genera which furnish destructive species.

Special discussion of the natural orders Coleoptera, Hymenoptera, Lepidoptera, Homoptera, and Diptera.

Convenient groupings of insects—(*a*) According to crop attacked; (*b*) According to mode of attack.

Detailed discussion of insects injurious to crops and to live stock in Britain, with methods of prevention and remedy:—*inter alia*—Wireworms, weevils, turnip-flies, bark beetles, thrips, saw-flies, sirices, surface-caterpillars, winter moths, codlin-moths, goat-moths, leopard-moths, magpie-moths, cabbage butterflies, aphides, scale-insects, mangel-flies, cabbage-flies, onion-flies, Hessian flies, wheat-midges, gout-flies, frit-flies, celery-flies, leather-jackets, ox-warble-flies, sheep's-nostril-flies, gad-flies. Other pests, outside the class Insecta:—as millepedes, arachnids, eelworms.

Present position of Agricultural Entomology in Britain, &c., and remarkable advances made during recent years. The course is profusely illustrated by carefully prepared natural specimens, the characters of which are demonstrated by the Lecturer. The instruction is further facilitated by a unique set of special coloured diagrams, from the pencil of Miss Ormerod.

IX. ECONOMIC SCIENCE AS APPLIED TO AGRICULTURE.

PROFESSOR NICHOLSON.

Lectures up to Christmas, see under Faculty of Arts.

X. (*a.*) FORESTRY.

COLONEL BAILEY, *Lecturer.*

Five days a week, at 10 A.M., during Winter.

1. *Principles of Sylviculture.*—On the general lines of Dr Schlich's "Manual of Forestry," vol. i.

2. *Formation and Tending of Woods.*—On the general lines of Dr Schlich's "Manual of Forestry," vol. ii.

3. *Protection of Standing Woods.*—Draining; fencing; cold winds and storms; fires; mammals and birds; insects; diseases; weeds; frost and drought; rain, hail, snow and rime; wounds.

4 *Timber.*—Its structure, characteristics, and identification; relative form and size of stem, branches and roots; physical properties; seasoning; defects and unsoundness; durability.

5. *Utilisation of Produce.*—Uses of wood; felling; conversion; measurement and sale; transport; harvesting of bark; fodder, fruits, and litter; impregnation; charcoal.

6. *Working Plans.*—General principles.

7. *Uses and Effects of Forests.*—Direct uses; indirect effects—effects on temperature and moisture, mechanical effects.

8. *Forestry in Scotland.*—General considerations; the financial question.

X. (*b.*) EXPERIMENTAL PHYSICS.
PROFESSOR TAIT.

Full Laboratory Course, see under Faculty of Arts.

X. (*c.*) ENGINEERING.
PROFESSOR ARMSTRONG.

See Winter Course, under Graduation in Engineering.

Graduation in Science.

I.—PURE SCIENCE.

A.—Regulations and Curricula for Degrees in Pure Science.

Candidates who began attendance on qualifying Science Classes before 1st October 1892, *are referred to the Calendar for* 1895-96 *or previous Calendars.*

N.B.—Figures within brackets refer to the Sections of Ordinance No. 12.

[1.] Two Degrees in Science are conferred by the University of Edinburgh, viz.:—Bachelor of Science (B.Sc.) and Doctor of Science (D.Sc.). These degrees are given in Pure Science and in Applied Science.

I.—Preliminary Examination.

The Preliminary Examinations in General Education are held in the Examination Hall in the University, in autumn and spring. (Time-Table, pages 120-122.)

Candidates may obtain Schedules at the Matriculation Office on and after 4th September 1897 and on and after 15th February 1898. The Schedules must be completed and lodged along with the Fees not later than 17th September 1897 and 1st March 1898 for the Autumn and Spring Examinations respectively.

Fee, 10s. 6d. for each appearance.

Candidates may pay the Fees personally, or transmit them to T. Gilbert, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts* crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, and not by cheques on private accounts. When names are not entered and Fees paid on or before the stated dates, an additional or late entry fee of 10s. must be paid before the Candidate can be admitted. A Candidate is not held to be entered until his Schedule is lodged, the Fee paid, and a Pass to the Examination obtained.

[11.] 1. Candidates before entering on the Curriculum must, unless exempted, pass a Preliminary Examination in the following subjects:—[1]

(1.) English.
(2.) One of the following:—Latin, Greek, French, or German.
(3.) Mathematics.
(4.) One of the following:—Latin, Greek, French, or German (if not already taken), Italian, or such other language as the Senatus may approve,[2] Dynamics.

2. *English* includes Grammar and Composition, and the Outlines of Geography and British History, the standard being that presently adopted for the Higher Grade Leaving Certificate of the Scottish Education Department.

3. *Latin* and *Greek* comprise grammatical questions, translations into English from Latin or Greek authors, not previously prescribed, and translations of plain passages or easy sentences from English into Latin or Greek. The standard is that presently adopted for the Lower Grade Leaving Certificate.

4. *French*, *German*, and *Italian* comprise grammatical, literary, and easy philological questions, translation into English from French, German, or Italian authors, not previously prescribed, and translations from English into French, German, or Italian. The standard is that presently adopted for the Higher Grade Leaving Certificate of the Scottish Education Department.

[1] See section 5, next page, and also additional Regulations of Joint Board, pages 115 and 477.

[2] Any Candidate who proposes to be examined in a language other than those above named, is required to apply to the Senatus for approval before 1st February or 1st July for the Spring and Autumn Examinations respectively.

5. Candidates may take Mathematics on the intermediate standard instead of on the higher standard, provided they also take an additional modern language on the standard of the Preliminary Examination for Degrees in Medicine, as a fifth subject.[1]

Mathematics on the intermediate standard comprises Mathematics on the lower standard—viz., (1) Arithmetic, including Vulgar and Decimal Fractions, Proportion, Percentage, Square Root, Simple Interest; (2) Algebra, including Fractions, Factors, Square Root, Equations of the First Degree, Simultaneous Equations of the First Degree, Easy Quadratic Equations, Problems leading to the above Equations; (3) Geometry—Euclid, Books I., II., and III. (or their equivalents), with easy deductions; and also (*a*) Euclid; Book VI., Propositions 1-19, or Geometry equivalent thereto. (*b*) Algebra; Quadratic Equations, Ratio and Proportion. (*c*) The Trigonometry of Right-angled Triangles.

6. No Candidate will be entitled to profess Mathematics, Natural Philosophy, or Astronomy at the Final Science Examination, unless he has passed the Preliminary Examination in Mathematics on the higher standard.

Mathematics on the higher standard comprises Mathematics on the lower standard as above, and Books IV., VI., and the first twenty-one propositions of Book XI. (or their equivalents), with deductions, Quadratic Equations, Trigonometry to the solution of Triangles inclusive, and the use of Logarithmic Tables.

7. *Dynamics* includes Elementary Statics and Kinetics of Solids, Liquids, and Gases.

8. A Candidate must pass in all the required subjects at one or not more than two Examinations, provided that he may offer himself for re-examination, as often as may be necessary, to satisfy this condition.

9. Attendance on any Science Class will not qualify for Graduation unless the whole Preliminary Examination has been passed.

II.—Degrees in Pure Science.

[III.[2]] 1. Candidates for the Degree of B.Sc. must, in the course of not less than three Academical years (*i.e.* three Winter Sessions, or two Winter Sessions, and three Summer Sessions), attend at least seven courses of instruction in the subjects included in the Science Examination which they purpose to undergo.

2. Three of these Courses must be in subjects prescribed for the First Science Examination, and four must be in subjects prescribed for the Final Science Examination.

[IV.] 3. Four of the seven Courses must be taken in the University of Edinburgh. The remaining three Courses may be taken at this University or at other Universities or Institutions approved by the University Court, or under teachers recognised by the Uni-

[1] This does not apply to Graduates in Engineering.

[2] Figures within brackets refer to the Sections of Ordinance, No. 12.

versity Court for purposes of Graduation in Science, provided that the fees for attendance at an approved Institution or under a recognised teacher in Edinburgh, shall in all cases not be less than the fees exigible for the corresponding Courses in the University of Edinburgh.[1]

[V.] 4. Every Candidate for a Degree in Science must produce his Matriculation Ticket for the year in which he appears for Examination or Graduation.

5. All Candidates, not Matriculated Students of this University, availing themselves of the permission to attend Lectures at approved Institutions or by recognised teachers in Edinburgh, must, at the commencement of each year of such attendance, enrol their names at the Matriculation office, paying a fee of the same amount as the Matriculation Fee, and having, in respect of such payment, a right to the use of the University Library.

[XVII.] 6. A Student who before October 1892 has completed a part of his course of study with a view to Graduation in Science under regulations in force at the time in this University, and shall thereafter complete his course of study and pass the necessary Examinations in conformity with such regulations, or with those now in force, may become a Candidate for the Degree of B.Sc.

7. Candidates for Graduation who have previously passed the Examinations are required to intimate to the Clerk to the Senatus their intention to graduate, and pay the Registration fee at least ten days before the date of Graduation. Those whose Examinations are not then completed are required to give such intimation at the earliest possible date, and at latest one clear day before the day of Graduation.

UNIVERSITIES AND INSTITUTIONS AT PRESENT RECOGNISED IN TERMS OF REGULATION II. 3.

The Universities of St Andrews, Glasgow, Aberdeen, Oxford, Cambridge, Dublin, and Victoria University, Manchester. Heriot-Watt College:—Mechanics and Physics, as equivalent to one course in Natural Philosophy, qualifying for the first B.Sc. examination in Pure Science; Advanced Chemistry and Chemical Laboratory, as qualifying for the final B.Sc. examination; Electricity (Pure and Applied), Engineering, Laboratory Practice (Mechanical or Electrical), as qualifying for the degree of B.Sc. in Engineering. The Glasgow and West of Scotland Technical College; University College, Dundee; University College, London; King's College, London; The Royal Colleges of Science, South Kensington; The Owens College, Manchester; The Mason College, Birmingham; The College of Science, Newcastle-on-

[1] Only Institutions and Teachers with the necessary staff and appliances for Theoretical and Practical Instruction in Science will be recognised by the University. A List of Universities and Institutions at present recognised in terms of this regulation is given on this and the following page.

Tyne; The Yorkshire College of Science, Leeds; University College, Bristol; University College, Liverpool; The Firth College, Sheffield; University College, Nottingham; The University College of North Wales, Bangor; University College of Wales, Aberystwith; The University College of South Wales and Monmouthshire; The Engineering College, Cooper's Hill. The Queen's College, Belfast; The Queen's College, Cork; The Queen's College, Galway; The College of Science, Stephen's Green, Dublin; The School of Mines, Dublin; The Royal Agricultural College, Cirencester; The College of Agriculture, Downton; and the Veterinary Colleges of the United Kingdom.—The Presidency Colleges in Calcutta, Madras, and Bombay. The Thomasson Engineering College, and the Engineering College, Poona. M'Gill University, Montreal; The University College of Toronto; Queen's University, Kingston, Ontario; The University of Sydney; The University of Melbourne; The University of Adelaide; Wellington College; The University of New Zealand; The University of Otago; Dalhousie College, Halifax, Nova Scotia; Stellenbosch College, South Africa. The University of Harvard; The University of Yale; The Johns Hopkins University. The Universities, and Polytechnic Schools supported and regulated or recognised by the governments of the respective Countries of Europe.

EXAMINATIONS.

(A.) Degree of Bachelor of Science.

For the Degree of B.Sc. there are two Examinations, conducted by written questions, as well as orally and practically.

(*a.*) *First Science Examination.*

[VIII.] 1. The First Examination for the Degree of B.Sc. is as to the general knowledge of the Candidate on the following subjects:—

(i.) Mathematics, or Biology (*i.e.* Zoology and Botany).
(ii.) Natural Philosophy.
(iii.) Chemistry.

2. The Examination in these subjects is the same as for the ordinary degree of Master of Arts.

3. Candidates may present themselves in any one or more of these subjects at any Examination held after they have attended a full course in the subject or subjects professed.

(*b.*) *Second Science Examination.*

[IX.] 1. The Second B.Sc. Examination is on a higher standard in any three or more of the following subjects:—

(1) Mathematics.
(2) Natural Philosophy.
(3) Astronomy.
(4) Chemistry.
(5) Human Anatomy, including Anthropology.

(6) Physiology, including Histology and Physiological Chemistry.
(7) Geology, including Mineralogy.
(8) Zoology, including Comparative Anatomy.
(9) Botany, including Vegetable Physiology.

2. The standard of this Examination is as nearly as possible equivalent to that of the Examination for the Degree of M.A. with Honours, where the subjects are different: and where the subjects are the same the examination is identical.

3. A subject already taken for the First Examination may be taken also for the Second Examination.

4. Candidates presenting themselves for the Second Examination must have attended four full courses of higher instruction, including practical or laboratory work, in the Subjects professed.

5. The Second Science Examination cannot be taken sooner than one year after the Candidate has passed the First Science Examination.

[X.] 6. If a student, before passing the Preliminary Examination has attended a class qualifying for graduation, the Senatus may, on special cause shown, permit him to count such class for examination, on condition of his passing the full Preliminary Examination within such time as the Senatus may appoint.

[XI.] 7. A Candidate for the degree of B.Sc. is not deemed to have attended a class as part of the curriculum for that degree unless he presents a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

[XII.] 8. The Examiners for the degree of B.Sc. have power to report that a Candidate has passed with special distinction in one or more of the subjects professed by him: and in such a case a Diploma is given setting forth the subjects in respect of which the degree has been granted, and the subject or subjects in which special distinction has been obtained.

9. A Candidate who has passed the First and Second Science Examinations, and otherwise complied with the regulations for Graduation, will be recommended to the Senatus for the Degree of B.Sc.

Courses for Final Examination in Pure Science.

In Mathematics and Natural Philosophy the Examination is the same as for Honours in Arts. In each of the other subjects professed, two written papers are set, namely, a *first* and a *second* paper; and the Practical and Oral Examinations also consist of *first* and *second* parts. The second part of the Examination is of a higher standard than the first. Candidates must pass the first section of the Examination (as well written as practical and oral) in all the subjects professed. They must also pass the second section in at least one of their subjects. The following Courses of Higher Instruction in this University, (1) Intermediate and (2) Advanced, qualify for the first and second stages of the Final Examination in Pure Science:—

1. Mathematics: (1) *Intermediate Course*, as for Honours in Arts. (2) *Advanced Course*, as for Honours in Arts.

2. Natural Philosophy: (1) *Intermediate* Mathematical, (2) *Advanced* Mathematical, *Advanced* Experimental, or *Special* Laboratory Course.

3. Astronomy: (1) *Intermediate Course:* Winter Lecture Course, including Practical work, (2) *Advanced Course* of Practical Instruction at the Observatory.

4. Chemistry: (1) *Intermediate Course:* One Winter Course, or two Summer Courses in Laboratory, and a Course of Lectures on Organic Chemistry. (2) *Advanced Course:* Further Laboratory Work and one Lecture Course.

5. Human Anatomy, including Anthropology: (1) *Intermediate Course:* Six months' Lectures on Systematic Anatomy (Winter Session), with six months' Practical Anatomy. (2) *Advanced Course:* Course of Anthropology.

6. Physiology: (1) *Intermediate Course:* Six months' Lecture Course (Winter Session) and Practical Work (Winter or Summer Session). (2) *Advanced Course:* Laboratory Work (Winter Session).

7. Geology, including Mineralogy: (1) *Intermediate Course:* Winter Lecture Course and Practical Class. (2) *Advanced Course:* Laboratory Work, or Advanced Lecture Course.

8. Zoology, including Comparative Anatomy: (1) *Intermediate Course:* Six months' Course, including Lectures on Invertebrate Zoology, and on Embryology, with Laboratory Work. (2) *Advanced Course:* Six months' Course on the Morphology of the Invertebrata and Vertebrata, and Laboratory Work.

9. Botany, including Vegetable Physiology: (1) *Intermediate Course:* Six months' work in Laboratory. (2) *Advanced Course:* Laboratory Work, with one or more Lecture Courses.

REGULATIONS FOR SPECIAL STUDY AND RESEARCH AND FOR APPOINTMENT OF RESEARCH FELLOWS.

I. The Senatus, with the approval of the University Court, may make regulations under which graduates of Scottish Universities, or of other Universities recognised by the University Court, or other persons who have given satisfactory proof of general education and of fitness to engage in some special study or research, may be admitted to prosecute such study or research in the University.

II. It is the duty of the Senatus in each University—

(1) To receive and decide upon all applications for admission to prosecute special study or research.

(2) To prepare a list of all persons admitted as Research Students.

(3) To make regulations for the supervision of their work.

(4) To satisfy themselves from time to time that the Research Students are carrying on their work in a satisfactory manner.

(5) To suspend or exclude from any course any student whose conduct or progress is unsatisfactory.

III. Every applicant must send in to the Senatus a written application stating any degree or other distinction he has obtained, the line of study or research he wishes to prosecute and the probable period of

its duration, together with evidence as to his character, capacity, and general qualifications.

IV. Any application shall be in the first instance referred by the Senatus to the appropriate Faculty, or to a Committee appointed by the Senatus; one member of the Committee shall always be a Professor or Lecturer within whose department the proposed line of study or research falls. No applicant shall be recommended by the Faculty or the Committee who has not satisfied them by examination or otherwise that he is qualified to prosecute the proposed line of study or research, and further—

(*a*) That his proposed line of study or research is fit and proper;
(*b*) That he possesses a good general education;
(*c*) That he is of good character;
(*d*) That he proposes to prosecute his studies or research during a period to be approved by the Senatus.

The Faculty or the Committee shall report to the Senatus on each application. It shall also be their duty, subject to the regulations of the Senatus, to provide for the supervision of the Research Student's work, and to report at least once a year to the Senatus as to his progress and conduct. The Senatus shall then determine whether he shall remain a Research Student.

V. Every Research Student shall be required to matriculate each year, paying the ordinary fee.

VI. Research Students have the use of the University Laboratories and Museums, under such conditions as the University Court, after consultation with the Senatus, may determine.

VII. The title of Research Fellow may be conferred by the Senatus with the approval of the University Court, on Research Students who have shown special distinction. Such title shall not of itself confer any right to stipend, but it shall be in the power of the University Court to provide a stipend of such amount and for such period as it may think fit to any Research Fellow.

VIII. (1) The Research Fellows shall be appointed after consideration of the report or reports submitted in terms of Section IV.

(2) The title of Research Fellow may be conferred at the commencement of the Research Student's course of study or research, or at any time during its progress, as the Senatus may determine.

(3) Research Fellows shall retain their title and stipend, if any, for the period during which they are engaged in special study or research in the University, and no longer.

(4) Research Students who have been appointed Research Fellows shall continue subject to the above conditions as to the supervision of their work and the reports to be made thereon.

IX. Nothing herein contained shall prejudice the right of Research Students to such Fellowships, Scholarships, or Prizes as may be open to them by Ordinance or Deed of Foundation.

X. The University Court may provide such sums as it may think fit in aid of the expenses of Special Study or Research.

(B.) Degree of Doctor of Science.

1. Graduates of this University who have held the Degree of B.Sc. for five years may offer themselves for the Degree of D.Sc. Candidates must profess one of the following branches of Science :—Mathematics; Natural Philosophy; Astronomy; Chemistry; Human Anatomy, including Anthropology; Physiology, including Histology; Geology, including Mineralogy; Zoology, including Comparative Anatomy; Botany, including Vegetable Physiology; and in this they will be expected to show a thorough knowledge.

2. Masters of Arts of this University with first or second class honours in Mathematics and Natural Philosophy under the conditions prescribed by the present Regulations for Degrees in Arts, or under the Regulations previously in force in this University, may offer themselves for the degree of D.Sc. after the expiry of five years from the date of their graduation in Arts, under the same conditions as if they held the degree of B.Sc.

3. Research Students within the meaning of the Regulations for the Encouragement of Special Study and Research and for the appointment of Research Fellows, may offer themselves for the degree of D.Sc. of the University in which they have prosecuted some special study or research, although they have not taken the degree of B.Sc. or the degree of M.A. with honours as aforesaid, in that University; provided—

(1) That they hold the degree of B.Sc. or Bachelor of Medicine of a Scottish or any recognised University, or a degree of any such University, which the Senatus shall hold equivalent to the degree of B.Sc. or to the degree of M.A. with first or second class honours in Mathematics and Natural Philosophy; provided that Candidates who hold any such degree from a University outside the United Kingdom may be required, if the Senatus think fit, before beginning their course as Research Students with a view to the degree of D.Sc., to pass an examination equivalent to an Honours or to a Final Science examination in a group of subjects cognate to their line of work as Research Students.

(2) That they have spent not less than two winter sessions or an equivalent period as Research Students in the University granting the degree, and that they produce evidence of satisfactory progress in the special study or research undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

4. All Candidates for the degree of D.Sc. shall present a Thesis or a published Memoir or Work, to be approved by the Senatus

on the recommendation of the Faculty of Science; provided that, if required by the Senatus, the Candidate shall also be bound to pass such an examination conducted orally or practically, or by written papers, or by all of these methods, on the subjects of his special study or of his Thesis, as may from time to time be determined. The Thesis shall be a record of original research undertaken by the Candidate, and shall be accompanied by a Declaration, signed by him, that the work has been done and the Thesis composed by himself.

The Thesis must be sent to the *Dean of the Faculty of Science* on or before 20th January in the year in which the Candidate proposes to graduate.

5. Notwithstanding and in supplement of the Regulations as to Examinations, the Senatus Academicus shall appoint such Professors or Lecturers as it may think suitable to conduct the examination of candidates who may offer themselves for the degree of D.Sc., and the University Court shall, after consultation with the Senatus Academicus, appoint an additional Examiner to act along with them. Such additional Examiner shall be a person of recognised eminence in the subject of the thesis, or memoir, or work which is to be submitted for approval. The result of the examination shall be reported to the appropriate Faculty or Committee of Senatus.

6. The degree of D.Sc. shall in no case be conferred on persons who have not satisfied the conditions hereinbefore set forth, and shall not be conferred *honoris causa tantum.*

7. The fee for examination for D.Sc. is £10, 10s.: for re-examination, £5, 5s.

Regulations for the Graduation of Women and for their Instruction.

excerpts from ordinance no. 18 (general no. 9).

1. It shall be in the power of the University Court to admit women to graduation.

2. The conditions for graduation shall be the same for women as for men, subject to the following modifications, which shall have effect until provision is made for the instruction of women in all subjects qualifying for graduation, in which provision is made for the instruction of men:—

Section 3 of the Regulations for Degrees in Science shall not be applicable to the graduation of women in Science, so long as within the Faculty provision is not made for the instruction of women in any subject qualifying for graduation in which provision is made for the instruction of men, and it shall be in the power of the University Court to admit to graduation women who have received the requisite instruction in that subject in any other Universities or Institutions approved by the University Court, or under teachers recognised by the University Court for purposes of Graduation in Science: Provided always that

every candidate for graduation shall produce evidence of having satisfied the conditions with respect to the Preliminary Examination, and shall be examined in all the subjects necessary for graduation by the Examiners of the University.

3. So soon as within the University provision is made for the instruction of women in all subjects qualifying for graduation in which provision is made for the instruction of men, the conditions for the graduation of women shall be the same as the conditions for the graduation of men.

4. (1) Women who attend classes in the University must matriculate. (2) Women, who are candidates for graduation but not matriculated students, and who may attend classes in Edinburgh, under the provisions above set forth, must, at the commencement of each year of such attendance, enrol their names in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by students of the University.

Additional Regulations by the University Court.

Any woman who has received the requisite instruction in Chemistry, Botany, and Zoology, in any other University or Institution already approved by the University with the view to the Graduation of men, or under any teacher already recognised with that view, or in the Edinburgh School of Medicine for Women, Surgeon Square, Edinburgh, or in the Medical College for Women, Chambers Street, Edinburgh, will—subject to the provisions of Ordinance[1] No. 18, General No. 9—Regulations for the Graduation of Women, &c., be admitted to Examination in these subjects for Graduation in Science.

Women may attend within the University the advanced Courses in Botany and Zoology, and the advanced Lecture Courses in the Chemistry Department, qualifying for Graduation in Science.

Any woman, not a Matriculated Student of the University, availing herself of the permission to attend the Lectures on Chemistry, Botany, or Natural History, at the above-named Schools of Medicine in Edinburgh, must, at the commencement of each year of such attendance, enrol her name in a book to be kept in the University for that purpose, paying a Fee of the

[1] See Ordinance, Appendix to Calendar, 1892-93, page 51.

same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

OUTLINE OF EXAMINATIONS.

I.—First Examination for B.Sc. in Pure Science.

(*a*1) MATHEMATICS.

Arithmetic—Euclid, Books I., II., III., IV., VI., and XI., or their equivalent, with their application to Mensuration—Algebra, Trigonometry, Conic Sections, Geometrical and Analytical.

Candidates must show sufficient knowledge in each of the subjects of Examination.

(*a*2) ZOOLOGY.

(*a*) The General Principles of Biology.

(*b*) The distinctive characters of the Invertebrate groups, and the structure, habits, &c., of Amœba, Paramœcium, Hydra, Arenicola, Hirudo, Anodon, Helix, Nephrops, and Periplaneta.

(*c*) The distinctive characters of the Chordata groups, and the structure, habits, &c., of Myxine, Raia, Rana, Columba, Ornithorhynchus, Macropus, Lepus, Ovis, and Canis.

(*d*) The skeletons of Crocodilus, Equus, Felis (skull only), Balæna, Vespertilio, and Troglodytes.

(*e*) A general knowledge of the Orders of Mammalia.

(*f*) The life-histories of Gregarina, Distoma, Tænia, Ascaris, Trichina, and Filaria.

(*g*) The outlines of the development of Amphioxus, Scyllium, and Rana, and of the fœtal appendages of Gallus and Lepus.

(*h*) The principles of the Geographical Distribution of Animals, and the Distribution of the Mammalia.

(*a*2) BOTANY.

The characteristic features of the following groups and classes of the vegetable kingdoms :—

Thallophyta [Schizophyta, Algæ, Fungi]; Muscineæ [Hepaticæ, Musci]; Pteridophyta [Filicineæ, Equisetineæ, Lycopodineæ]; Phanerogamæ [Gymnospermæ, Angiospermæ (Monocotyledones, Dicotyledones)].

The fundamental facts and principles of Morphology (including Anatomy, Histology, and Development) and Physiology. The life-history of the following plants :—Bacterium, Saccharomyces, Mucor, Vaucheria, Eurotium, Funaria, Aspidium, Pinus, Scilla, Helianthus, Ulmus; and the characters of plants belonging to the following natural orders of Phanerogamæ :—Coniferæ, Gramineæ, Orchideæ, Liliaceæ, Urticaceæ, Labiatæ, Compositæ, Umbelliferæ, Rosaceæ, Leguminosæ, Cruciferæ, Ranunculaceæ.

(*b*) NATURAL PHILOSOPHY.

Elementary Dynamics.
Experimental Physics.

Candidates must show sufficient knowledge of both subjects.

(*c*) CHEMISTRY.

Chemical changes as distinguished from physical changes. Elements; compounds; mixtures. Laws of chemical combination by weight and by volume. The Atomic theory. Atoms; molecules. Avogadro's Hypothesis. Molecular weights of gaseous and volatile substances. Atomic weights. Law of Dulong and Petit. Chemical Notation—Symbols; formulæ; equations. Simple chemical calculations.

The non-metallic elements and their chief compounds; especially the compounds of oxygen, of hydrogen, and of chlorine with the other non-metals. The more important inorganic acids. The atmosphere. Combustion. Oxidation and reduction.

The following metallic elements and their chief compounds; especially those with oxygen, with chlorine, and with sulphur: Gold, platinum, silver, mercury, lead, antimony, tin, copper, bismuth, zinc, iron, aluminium, chromium, manganese, barium, strontium, calcium, magnesium, potassium, sodium.

The following salts: the ammonium salts; the more important sulphates, sulphites, thiosulphates, nitrates, nitrites, carbonates, bromides, iodides, iodates, phosphates, borates, silicates.

The relations of bases, acids, and salts. Electrolysis. Quantivalence. The periodic law.

The metallurgy of silver, mercury, copper, lead, tin, zinc, iron (including cast iron and steel). Alloys, such as brass, bronze, solder, type-metal. Amalgams.

The manufacture of aluminium, magnesium, potassium, sodium, glass, porcelain, mortar, gunpowder, sulphuric acid, sodium carbonate and bicarbonate, caustic soda, bleaching powder and chlorates, white lead.

Classification of Carbon compounds. Marsh Gas and its Homologues. Chloroform. Methyl and Ethyl Alcohols and Ethers. Substituted ammonias and ammonium salts. Formic and Acetic Acids, Aldehyde, Acetone, Chloral, Olefiant Gas, Oxalic Acid, Lactic Acid. Tartaric Acid, Citric Acid. Fats and Oils, Saponification, Glycerine. Cellulose, Sugars, Starch. Distillation of Wood and of Coal. Benzene, Benzoic Acid, Phenol, Salicylic Acid, Oil of Bitter Almonds, Hydrocyanic Acid, Cyanides, Cyanates, Thiocyanates, Urea, Uric Acid.

Simple Qualitative Analysis. The examination in this is conducted practically. Candidates are required to examine unknown *single salts* for both metallic and salt radicals, as contained in the following lists:—

Silver, Mercurous, Mercuric, Cupric, Lead, Stannous, Stannic, Bismuth, Antimony (*Tartar Emetic* may be given), Arsenious, Zinc, Manganous, Ferrous, Ferric, Chromic, Aluminium, Calcium, Barium, Strontium, Magnesium, Ammonium, Sodium, Potassium.

Carbonate, Sulphite, Thiosulphate, Sulphide, Hypochlorite (Bleaching solution), Nitrite, Chloride, Bromide, Iodide, Cyanide, Sulphate, Chromate, Orthophosphate, Arseniate, Arsenite, Borate, Oxalate, Nitrate, Chlorate, Acetate.

At the examination, Candidates are supplied with the following reagents, &c. :—Acetic Acid, dilute Hydrochloric Acid, dilute Nitric Acid, Sulphuric Acid, dilute Sulphuric Acid, Alcohol, Iodine, Ammonia, Ammonium Carbonate, Ammonium Chloride, Ammonium Oxalate, Ammonium Sulphide, Barium Nitrate, Bleaching Powder, Calcium Chloride, Calcium Hydrate, Calcium Sulphate, Cobaltous Nitrate, Cupric Sulphate, Ferric Chloride, Ferrous Sulphate, Lead Acetate, Magnesium Sulphate, Mercuric Chloride, Potassium Carbonate, Potassium Chromate, Potassium Ferricyanide, Potassium Ferrocyanide, Potassium Hydrate, Potassium Iodide, Silver Nitrate, Sodium Bitartrate, Sodium Phosphate, Sodium Sulphite, Stannous Chloride, Sulphuretted Hdyrogen. *Solids*—Manganese Dioxide, Sodium Carbonate, Borax, Sulphur, Zinc, Copper.

Test papers :—Blue Litmus, Red Litmus, Plain, Starch, Turmeric.

Bunsen Burner, Test Tubes.

II.—Final Examination.

(*a*) MATHEMATICS.

Pure Geometry, Algebra, Theory of Equations, including Determinants, Trigonometry (Plane and Spherical), Analytical Geometry, Differential and Integral Calculus, Calculus of Finite Differences. (The Candidate may, if he please, profess the Elements of Quaternion Analysis.)

(*b*) NATURAL PHILOSOPHY.

Experimental Physics ; Analytical Dynamics and Thermodynamics ; *imperative.*

In addition, two or more branches of Elementary Mathematical Physics (such as Geometrical or Physical Optics, Statical or Voltaic Electricity, Capillarity, &c.). These may be selected by the Candidate.

(*c*) ASTRONOMY.

1. The Principles and Practice of astronomically finding the geographical co-ordinates of the place of observation on land and at sea.

2. The Principles that guide the actual determination of the chief astronomical constants—*refraction*, *aberration*, *nutation*, *precession*, and *solar-parallax* in fixed observatories.

3. The methods used for determining the figure and size of the earth.

The Candidate will be required to explain the general principles on which the orbits of planets, etc., are calculated, and must show a thorough knowledge of the methods followed in the case either of a *comet*, *planet*, *double-star*, or of a *meteorite* and a *meteoritic swarm*.

One group of observations must have been made in the field, or at an observatory, and fully reduced so as to show the value of the derived results, and the precautions that have been taken to free them from instrumental and personal errors. Candidates will also be examined as to the best ways of testing the critical parts of instruments, such as a *pivot*, *screw*, *level*, etc.

(*d*) CHEMISTRY.

Written and Oral Examinations:—Inorganic, including Mineralogical, Chemistry; Organic Chemistry; Physical Chemistry; Chemical Crystallography; History of Chemistry. Practical Examination:—Complex qualitative Analysis; Quantitative Analysis, including Gas Analysis and Organic Analysis; Preparation of Pure Substances, organic and inorganic; Physico-chemical measurements.

In the written papers a choice of questions is allowed, so as to adapt the examination to the various courses of advanced study which Candidates may have selected.

Exact quantitative determinations are not included in the first part of the practical examination.

(*e*) HUMAN ANATOMY, INCLUDING ANTHROPOLOGY.

Candidates are required to show a competent knowledge of the development of the human body and of its parts and organs; also the position and general arrangement of the different "systems" of organs which enter into its construction, and the structure both of these organs and of the simple tissues. A special knowledge of the locomotory apparatus and of the nervous and vascular systems will be required. An acquaintance with the technical applications of human anatomy to the practice of Medicine and Surgery is not asked for.

The Anthropological part of the subject will embrace a knowledge of race characters as found in the skull and other parts of the skeleton, in the skin, eyes, hair, features, and the external configuration of the body generally. The methods of anthropometrical measurement both of the living body and of the skeleton should be known. The possible influence of use and of external surroundings in producing modifications in the physical characters of man will require attention. An acquaintance with the "types" of mankind and the structural relations of man to the higher mammals will also be expected.

(*f*) ANIMAL PHYSIOLOGY.

The Structure, Chemical Composition, and Functions of the Elementary Tissues of Man and Animals.

The Minute Structure and Functions of the Organs concerned in the Nutrition of Man and Mammals.

The Chemical Composition and Functions of the Foods and Fluids involved in the Process of Nutrition.

The Temperature of Man and Animals.

Human Voice and Speech.

The Minute Structure and Functions of the Organs of Sense, Brain, Spinal Cord, and chief Nerves of Man and other Vertebrates.

In the Oral Examination Candidates will be examined on the above subjects, and will also be required to show their practical acquaintance with Histology, Physiological Chemistry, and Experimental Physiology.

(*g*) GEOLOGY, INCLUDING MINERALOGY.

1. *Dynamical Geology.*—The nature and operation of geological agents:—The Atmosphere, Rain, Terrestrial Waters, Ice, the Sea, Plants and Animals, Volcanoes, Movements of the Earth's Crust.

2. *Mineralogy.*—Physical and Chemical characters of the more important and typical species in the various mineral groups—more especially the rock-forming minerals and ores.

3. *Petrology.*—Megascopic and Microscopic Characters, Composition, Origin and Distribution of Rocks.

4. *Structural Geology.*—Structure of Rock-masses, Bedding, Joints, Cleavage, Foliation, Metamorphism, Faults, Unconformity.

5. *Stratigraphical Geology.*—The History of the Geological Systems—more especially those of the British Islands.

6. *Palæontological Geology.*—Characters, and distribution in time, of the more important Genera and Orders, especially those found fossil in Britain.

7. *Physiographical Geology.*—Origin of the present outlines of the Earth's surface.

(*h*) ZOOLOGY, INCLUDING COMPARATIVE ANATOMY.

1. The Systematic Zoology of the Invertebrate and Vertebrate groups.

2. The Elements of the Comparative Anatomy and Development of the Invertebrata and Vertebrata.

3. The Principles of Natural Selection, a Knowledge of the Geographical Distribution of Vertebrate Animals.

The following books are recommended:—Lang's "Text-Book of Comparative Anatomy;" Huxley's "Vertebrata;" Flower and Lyddeker's "Mammalia;" Vogt and Yung's Practical Zootomy (German or French edition); Darwin's "Origin of Species;" Wallace's "Darwinism" and "Island Life;" Marshall's "Embryology."

(*i*) BOTANY, INCLUDING VEGETABLE PHYSIOLOGY.

1. Morphology (including Anatomy), and Physiology of Plants.

2. The Principles of Plant Classification, and the Systematic Characters of the chief Families of Plants, including the Life Histories of Representative Types.

3. The chief facts of Geographical Distribution, and the explanation of these.

4. The chief facts of Vegetable Palæontology, and their bearing on the Theory of Descent.

II.—ENGINEERING.

B.—Regulations and Curriculum for Degrees in Engineering.

Candidates who began attendance on qualifying Science Classes before 1st October 1893, *are referred to* Calendar 1895-96 *or previous* Calendars.

I. Two degrees in Science in Engineering are conferred by the University of Edinburgh—viz., Bachelor of Science in Engineering and Doctor of Science in Engineering.

I.—Preliminary Examination for Bachelor of Science.

II. Every candidate for the degree of B.Sc. in Engineering must pass the Preliminary Examination[1] prescribed for Degrees in Pure Science, and the conditions with respect thereto imposed by the Regulations for Degrees in Pure Science are applicable in all respects to Degrees in Engineering except as follows—viz., the Preliminary Examination must be passed before the candidate presents himself for any part of the First Science Examination, but not necessarily before the candidate enters on his curriculum.

II.—Courses of Instruction.

III. (1) Candidates must, in the course of not less than three Academical years (*i.e.* three Winter Sessions, or two Winter Sessions and three Summer Sessions), attend at least the eleven courses of instruction prescribed under Section VIII. hereof.

(2) It is the duty of the Senatus to determine from time to time which of the said courses are full and which are half courses respectively, and also to determine the number of meetings of which such full courses and half courses respectively shall consist, and to report its determination to the University Court for its approval.

IV. (1) Five full courses or their equivalent (counting two half courses as one full course) must be taken in the University of Edinburgh, and must include the necessary courses in Engineering, except where the University Court, after consultation with the Senatus, sees fit to allow one of the courses in Engineering to be taken outside the University under the provisions of the next sub-section.

(2) The remainder of the said courses may be taken in other Uni-

[1] See page 115.

versities or Institutions approved by the University Court, or under teachers recognised by the University Court for purposes of graduation in Science in Engineering :[1] Provided that the fees for attendance at an approved Institution in Edinburgh or under a recognised teacher there are not less than the fees exigible for the corresponding courses in the University of Edinburgh.

V. The University Court may make regulations to enable candidates, not matriculated students of the University of Edinburgh, availing themselves of the permission to attend lectures at approved institutions or by recognised teachers in Edinburgh to obtain, on payment of a fee not exceeding in amount the matriculation fee paid by the students of the University, a right to the use of the Library of the University.

VI. (1) It is the duty of the Professors and Lecturers annually at the end of each winter session to submit to the Senatus a scheme specifying what proportion of the courses shall be devoted to lectures, practical demonstrations, examinations, and tutorial work respectively. The Senatus transmits such scheme, with such observations as it may think fit to make thereon, to the University Court for its approval.

(2) It is the duty of the Professors and Lecturers annually at the end of each winter session to submit to the Faculty of Science, for its consideration, syllabuses of the subjects and books proposed for the work of their classes during the next Academical year. The Faculty of Science transmits such syllabuses, with such observations as it may think fit to make thereon, to the Senatus for its approval.

VII. The provisions of the preceding section do not apply to approved Institutions or recognised teachers outside Edinburgh ; but the University Court will not grant or continue recognition to any Institutions or teachers unless it is satisfied that their courses of instruction are equivalent to the courses sanctioned in the University of Edinburgh.

VIII. The subjects of study are as follows :—

1. Mathematics, including Analytical Geometry, and Differential and Integral Calculus.
2. Natural Philosophy, including Applied Higher Mathematics.
3. Chemistry.
4. A course in the Physical Laboratory or in the Chemical Laboratory, or of Practical Chemistry.

5, 6. Two Courses in Practical work in Drawing.

7, 8, 9. Three Courses in Engineering, including Engineering Laboratory Practice, and Field Work.

10. Natural Philosophy, involving Higher Mathematics.
11. One of the following :—
    - (*a*) Engineering Laboratory Practice, Mechanical or Electrical (Special Course).
    - (*b*) Electricity—Pure and Applied.
    - (*c*) Geology and Mineralogy.

[1] See footnote, page 217.

III.—Science Examinations.

(*a*) *First Science Examination.*

IX. (1) There is a First Science Examination in the three following subjects, viz.:—(1) Mathematics, (2) Natural Philosophy, (3) Chemistry; and the examinations in Natural Philosophy, and in Chemistry are so far as possible practical.

The examination in Geometrical Drawing may be taken either at the First or at the Final Science Examination.

(2) The examination in Mathematics includes the higher branches of Mathematics specified under Mathematics in the Section immediately preceding; but it is optional to Candidates to pass the same examination in this subject as that required for the ordinary Degree of M.A., provided that in that case they will be required, before graduation, to pass an examination in the remainder of the subject.

(3) Candidates may present themselves in any one or more of the subjects of the First Science Examination at any examination held after they have attended a full course in the subject or subjects professed.

The following Classes in the University qualify for the First Science Examination in Engineering:—

1. Mathematics—Intermediate Honours Class (Winter), or Advanced Class (Summer).
2. Natural Philosophy—As for Pure Science Degrees.
3. Chemistry—As for Pure Science Degrees.
4. Physical or Chemical Laboratories—A three months' Course in either.
5. Drawing—Class of Geometrical Drawing during one Winter Session.

(*b*) *Final Science Examination.*

X. (1) There is a Final Science Examination in the remaining subjects specified in Section VIII.; and, if required, in the higher branches of Mathematics as provided in Section IX., Sub-section 2.

(2) Candidates may present themselves in one or more of these subjects at any examination after they have passed the whole of the subjects in the First Science Examination and have attended the required courses in the subjects professed, provided that for this purpose subjects 5, 6, 7, 8, and 9, specified in Section VIII., shall form one subject.

XI. A candidate for the degree of B.Sc. in Engineering is not deemed to have attended a class as part of the curriculum for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

XII. It is competent to the Examiners for the degree of B.Sc. in Engineering to report that a candidate has passed with special distinction in one or more of the subjects professed by him; and in such a case a diploma is given setting forth the subjects in respect of which the degree has been granted, and the subject or subjects in which special distinction has been obtained.

XIII. It is competent to the University Court to modify from time to time the provisions as to the curriculum, in case such modification be rendered desirable by the development of Engineering Science, or in consequence of further provisions having been made within or without the University for the study of any branch of the said Science: Provided that in no case shall the number of full courses of study required be less than the number required for the degree of B.Sc. in Pure Science.

The following Classes in the University qualify for the Final Science Examination in Engineering:—

1. Drawing—Class of Engineering and Mechanical Drawing during one Winter Session.
2. Engineering—(*a*) Class of Systematic Engineering during two Winter Sessions. (*b*) Class of Engineering Field-Work, held in Summer.
3. Engineering Laboratory, or Electricity (Pure and Applied), or Geology and Mineralogy—A three months' Course in either.

IV.—Doctorate of Science in Engineering.

XIV. Graduates of the University of Edinburgh who have held the degree of B.Sc. in Engineering for five years, may offer themselves for the degree of D.Sc. in Engineering.

XV. A candidate for the degree of D.Sc.[1] in Engineering must present a Thesis, or a published memoir or work, to be approved by the Senatus on the recommendation of the Faculty of Science: Provided that, if required by the Senatus, the candidate must pass such examination as may be determined. The Thesis must be a record of original research undertaken by the candidate, or of important engineering work designed by himself, and actually carried out, and must be accompanied by a declaration, signed by him, that these conditions have been satisfied.

General.

XVI. Candidates who produce certificates that they have satisfied all the conditions prescribed by these Regulations, and who have passed the necessary examinations, will be entitled to receive the degrees of B.Sc. in Engineering and D.Sc. in Engineering, as the case may be, on the payment of the fees required.

XVII. A student who, when these Regulations came into operation, had completed a part of his course of study with a view to graduation in Science in Engineering in the University of Edinburgh, under regulations in force at the time, and who thereafter completes his course of study and passes the necessary examinations in conformity with such regulations, or with the provisions hereof, may become a candidate for the degree of B.Sc. in Engineering.

[1] The Thesis must be lodged with the Dean of the Faculty on or before 20th January of the year in which the candidate proposes to graduate.

XVIII. The degrees of B.Sc. and D.Sc. in Engineering are in no case conferred on persons who have not complied with the above conditions, and are not conferred *honoris causâ tantum.*

OUTLINE OF SUBJECTS OF EXAMINATION.

FIRST BACHELOR OF SCIENCE EXAMINATION.

1. MATHEMATICS—Two papers, one of two hours and one of three hours, to be taken at one time.[1] Subjects:—Mensuration; Trigonometrical Solution of plane triangles, involving the use of logarithmic tables (to be brought by the candidates). Curve-tracing; Elements of Cartesian and Polar Co-ordinates, including application to the analytical geometry of the straight line and the conic sections; Expansion of a determinant and elements of the theory of equations.

   Fundamental ideas of the Differential and Integral Calculus; Differentiation and Integration of Simple Functions; Geometrical Interpretation of Differentiation and Integration; Elementary application to plane curves, maxima and minima of functions of one variable, areas, volumes, centres of mass and moments of inertia; Simple Differential Equations.
2. NATURAL PHILOSOPHY, mainly Practical Physics.
3. CHEMISTRY—Same as for First Examination in Pure Science.

SECOND BACHELOR OF SCIENCE EXAMINATIONS.

1. (*a.*) ENGINEERING—

Field-Work.—Surveying; Levelling; Setting out of Work; Calculation of Quantities.

Properties of Materials.—General Properties, with special knowledge of their Strength, and the Purposes to which they are applied, and some knowledge of their Cost.

Strength and Stability of Structures designed by Civil Engineers.—Metal and Timber Bridges and Roofs. Arches in Masonry. Walls. Retaining Walls. Embankments. Cuttings. Breakwaters. Aqueducts. Pipes. Canals.

Strength and Form of the Elements of Machines.

Design of Combined Structures.—An elementary knowledge of the Design of Bridges and Roofs, of Reservoirs, Embankments, collecting and distributing Machinery of Waterworks, and of the main features of Railway construction, Harbours, and Drainage.

Design of Machinery.—An elementary knowledge of the construction of the Steam Engine, stationary and locomotive, of Prime Movers driven by Water, of Mill-wright work, and the general arrangement of Workshops and Factories.

Prime Movers.—Theory of Heat Engine. The Hot Air Engine.

[1] A candidate who has passed the M.A. Examination in Mathematics is exempted from the first of these papers.

The Steam Engine. The Gas Engine. Turbines and Water Wheels. *Power Transmission*—Telodynamic, Hydraulic, Electric.

Engineering Laboratory Practice.

(*b.*) DRAWING—

Candidates must exhibit a good knowledge of Geometrical Drawing, including the use of Graphics as applied in the solution of Engineering problems, and be able to represent neatly, in the usual manner employed by engineers, Plans and Sections of Buildings and Machinery, and also to make Engineering Sketches with figured dimensions from actual objects.

2. NATURAL PHILOSOPHY—

Applied Mathematics, chiefly Dynamics.

3. (*a.*) ENGINEERING LABORATORY PRACTICE, MECHANICAL OR ELECTRICAL.

(*b.*) ELECTRICITY—PURE AND APPLIED.

(*c.*) GEOLOGY AND MINERALOGY—

Dynamical Geology.—Nature and Operation of geological agents:—The Atmosphere, Rain, Terrestrial Waters, Ice, the Sea, Plants and Animals, Volcanoes, Movement of the Earth's Crust.

Mineralogy.—Physical and Chemical characters of the more important and typical species in the various mineral groups—more especially the rock-forming minerals and ores.

Petrology.—Megascopic and Microscopic Characters, Composition, Origin and Distribution of Rocks.

Structural Geology.—Structure of Rock-Masses, Bedding, Joints, Cleavage, Foliation, Metamorphism, Faults, Unconformity.

Physiographical Geology.—Origin of the present outlines of the Earth's surface.

DOCTOR OF SCIENCE EXAMINATION.

A Candidate for this Degree will be required to offer a thesis or published memoir affording evidence of original work, and may also be required to pass a Special Examination. See page 233.

III.—PUBLIC HEALTH.

C.—REGULATIONS AND CURRICULUM FOR DEGREES IN PUBLIC HEALTH.

Candidates who commenced attendance on qualifying Science Classes before 1st October 1894 *are referred to the* CALENDAR *for* 1895-96, *or to previous* CALENDARS.

I. Two degrees in Science in Public Health are conferred by the University of Edinburgh, viz., Bachelor of Science in Public Health and Doctor of Science in Public Health.

I.—Bachelor of Science.

II. Candidates for the degree of B.Sc. in Public Health must be graduates in Medicine of a University of the United Kingdom, or of some other University recognised for the purpose by the University Court of the University of Edinburgh.[1]

III. Candidates must be matriculated for the year in which they appear for examination or graduation.

(A.)—*First Examination.*

IV. Candidates for the degree of B.Sc. in Public Health, before proceeding to the first examination, must produce evidence (1) that, after their graduation in Medicine, they have worked for at least twenty hours per week during a period of not less than eight months, of which at least five consecutive months must be in the Public Health Laboratory of the University of Edinburgh, and the remainder in the foresaid Laboratory, or in a Public Health Laboratory recognised for the purpose by the University Court;[2] and (2) that they have attended in this University or any other Scottish University, in addition to the course of lectures in Physics qualifying for graduation in Medicine, such further course in Physics as the Senatus, with the approval of the University Court, shall deem necessary, and such a course of lectures in Geology, extending over not less than three months, as the Senatus with the like approval shall deem sufficient and appropriate.

The Courses in this University which at present qualify in Physics and Geology are Professor Tait's or Dr Knott's Courses in Physics, and Professor Geikie's Winter or Summer Course in Geology.

(B.)—*Second Examination.*

V. Candidates for the degree of B.Sc. in Public Health are not admitted to the second examination for the degree sooner than eighteen months after having taken their degree in Medicine, nor sooner than six months after having passed their first examination for the degree of B.Sc. in Public Health, and they must have attended two separate courses in Public Health in the University of Edinburgh, or in any University of the United Kingdom, or any Indian, Colonial, or Foreign University recognised for the purpose by the University Court, or in such Medical School or under such teacher as may be recognised or approved for the purpose by the University Court, each course consist-

[1] University of Würsbrug recognised under this section.

[2] *Public Health Laboratories and Teachers recognised under this section* :—

Public Health Laboratory of Mason's College, Birmingham,	E. Percy F. Frankland, Ph.D., October 1894.
Liverpool School of Science and Technology,	George Tate, Ph.D., 15 June 1891.
King's College, London,	W. R. Smith, M.D., D.Sc., November 1891.
University of Aberdeen,	Professor Matthew Hay, M.D., 15 February 1891.
Pasteur Institute, Paris,	22 October 1892.

ing of forty lectures at least; one of these courses shall deal with Medicine and the other with Engineering, each in its relation to Public Health, in such manner as the Senatus Academicus, with the approval of the University Court, shall determine.

The lectures in this University which at present qualify are the courses of the Professor of Medical Jurisprudence and Public Health, and the course of instruction (Theoretical and Practical) in Sanitary Engineering and Building Construction by the Professor of Engineering.

They must also give evidence (1) that for six months they have practically studied sanitary work under the Medical Officer of Health of a county or burgh or district, containing a population of not less than 25,000; (2) that they have had three months' clinical instruction regarding fevers and infectious diseases in a hospital recognised as suitable for the purpose by the University Court; and (3) that they have had three months' instruction in Mensuration and Drawing under a teacher recognised for the purpose by the University Court.

VI. There is a first examination for the degree of B.Sc. in Public Health in (1) Laboratory Work, the examination being practical, written, and oral; (2) in Physics; and (3) in Geology, if an examination in Physics or Geology, as the case may be, qualifying for graduation either in Science or Arts has not previously been passed by the candidate.

VII. There is a second examination, written, oral, and as far as possible practical, for the degree of B.Sc. in Public Health in the following subjects, included in the course of instruction in Public Health —viz. (1) Sanitation, (2) Sanitary Law, (3) Vital Statistics, and (4) Medicine in its bearings on Public Health, and the examinations in these subjects are taken at one time.

VIII. The Board of Studies for the Faculty of Science from time to time, with the approval of the Senatus, determines and announces the character of the instruction to be given in the Laboratory, and fixes the standard of the examinations. The examination in Sanitation, provided for under this section, shall include Reports by the candidates on Dwellings, Workshops, Hospitals, and Sanitary Schemes generally.

IX. It is competent for the University Court, after consultation with the Senatus, to modify from time to time the provisions as to the work and instruction hereinbefore specified as necessary for graduating in Science in Public Health, in case such modification may be rendered desirable by the development of the Science of Public Health, or by increase of the facilities provided in the said University or elsewhere for the study of any branch of the said Science.

Schedules of the Subjects of Examination.

Laboratory Work.

(1.) *Examination of Water.*—Physical Properties, Chemical Properties, Microscopical Appearances, Pollution of Potable Waters.

(2.) *Examination of Air.*—Temperature, Pressure, Humidity; Car-

bonic Acid, Ozone, Micro-organisms, Organic Matter, Noxious Emanations.

(3.) *Examination of Foods.*—Milk, Butter, Butterine, or Oleomargarine, Flour, Bread, Starchy foods, Sugar, Honey, Butcher meat, Fish, Vegetables.

(4.) *Examination of Beverages.*—Tea, Coffee, Cocoa, Alcoholic Beverages, Aërated Waters.

(5.) *Examination of Condiments.*—Salt, Pepper, Mustard, Vinegar, and Preserves; Examination of Lime Juice. Nutritive Value of Dietaries.

(6.) *Sewage.*—Examination of sewage and of effluents after treatment.

(7.) *Soils.*—Temperature, Humidity, Permeability, Chemical Composition, Gases of the Soil, Micro-organisms.

(8.) *Disinfectants and Deodorisers.*—Chemical Examination of the Materials, Determination of their comparative power.

(9.) *Building Materials.*—Chemical and Physical Properties.

(10.) *Clothing.*—Physical Properties of Clothing Materials.

(11.) *Bacteriology.*—Micro-organisms in relation to Epidemic and other Diseases. Culture and recognition of Pathogenic and Non-Pathogenic, Aerobic and Anaerobic, Micro-organisms.

PHYSICS.

(1.) *Laws of Motion and Properties of Matter.*—Elasticity, Density, Porosity, Divisibility, Viscosity, &c.

(2.) Elements of Dynamics of Solid and Fluid Bodies; Tides.

(3.) Elementary Experimental Facts regarding Energy in the common phenomena of Sound, Light, Heat, Electricity, and Magnetism.

GEOLOGY.

(1.) *Dynamical Geology.*—The nature and operation of Geological agents:—Rain, Underground Water, Rivers, Ice, the Sea, Earthquakes, Volcanoes, Movements of Upheaval and Depression.

(2.) *Mineralogy and Petrology.*—Characters of the more common and widely-distributed minerals and rocks.

(3.) *Structural Geology.*—The structure of rock-masses, more especially Bedding, Joints, Faults, Intrusive Rocks. Water-supply and Draining in connection with Geological Structure. Nature and Origin of Soils and Sub-Soils.

MEDICINE IN ITS APPLICATION TO PUBLIC HEALTH.

The General Pathology of Endemic, Epidemic, and other morbid Processes induced by Environment.

The Causes and Prevention of Endemic and Epidemic Diseases, as well as of Epizootics; of the Contagious or Infectious Diseases; and of those incidental to particular trades, or otherwise produced by the surroundings of the patient. Prophylaxis. Immunity. Vaccination against disease. Nature and Value of Vaccines.

SANITATION.

(1.) *Site and Environment of Dwellings.*—Influence of Position, Aspect, and Climate; Meteorological and Geological Conditions; Soil and Drainage.

(2.) *Water Supply.*—Quantity per head; Relative Eligibility of available Sources of Supply; Estimation of yield; Methods of utilising various Sources of Supply; Storage, Subsidence, and Filtration; Distribution—(α) General, (β) Domestic; Causes, Detection, and Treatment of contaminated Supply.

(3.) *Air Supply.*—Quantity and Temperature, with knowledge of use of instruments employed in their Measurement; Causes and Detection of Impurities; Warming and Ventilation; Characteristics and Fitness of various methods in use.

(4.) *Excreta, Refuse, and Sewage.*—Character and Quantity of in (α) Urban, (β) Rural Districts—

A. Collection and Removal from (1) the Dwelling, (2) the Town or Village; Nature, Practical details, and maintenance of the several methods employed.

B. Disposal: (1) Sanitary, (2) Insanitary methods; Precipitation, Filtration, Irrigation, Discharge; General details of necessary works.

(5.) *General Structural and Mechanical Details of Sanitary Works.*—Character, Fitness, and Qualities of Materials (Brick, Cement, Earthenware, Iron, Lead); Design, setting out, and laying of Sewers; Plumbing and Iron-work.

(6.) *Hospitals.*—Principles of Design and Construction.

(7.) *Infectious and Epidemic Diseases.*—Origin, Modes of Propagation, and Means of Prevention; Epizootics.

(8.) *Disinfectants.*—Selection and application.

(9.) *Effects of Insanitary Conditions.*—Insufficient house accommodation, Vitiation of Air, Impure Water, Bad or insufficient Food.

(10.) *Unhealthy Occupations.*—Means of mitigating or removing their unhealthiness.

(11.) *Nuisances.*—Urban, Rural, and Domestic.

(12.) *Disposal of the Dead.*—Burial, Cremation.

N.B.—Candidates are required to be able to interpret plans submitted to them, and to illustrate their answers when necessary by sketch plans and diagrams drawn to scale.

SANITARY LAW.[1]

Sanitary Administration. Laws affecting Factories, Workshops, Mines, Common Lodging-houses, Removal of Refuse, Nuisances, Rivers Pollution, Alkali Works, Burial Grounds, Unwholesome Food, Adulteration of Food and Drugs. Sale of Poisons.

[1] A knowledge of the Sanitary Law of any part of the British Dominions will be sufficient.

VITAL STATISTICS.

Leading facts as regards Population, Birth and Death Rates, Distribution of Diseases.

II.—DOCTORATE OF SCIENCE.

X. Graduates who have held the degree of B.Sc. in Public Health from the University of Edinburgh for a term of five years may offer themselves for the degree of D.Sc. in Public Health in the said University.

XI. Candidates for the degree of D.Sc. in Public Health must present a thesis, or a published memoir or works,[1] to be approved by the Senatus, on the recommendation of the Faculty of Science, and are required to pass an examination in Public Health, and in such of its special departments as the Senatus, with the approval of the University Court, may determine. [Candidates for D.Sc. in Public Health may appear for examination in any one of the departments of knowledge required for the degree of B.Sc. in Public Health. They are required to submit the subject in which they propose to be examined for approval at least two months before the date of the Examination.[1]]

The theses, or published memoirs or works, must be records of original research undertaken by the candidates, and must be accompanied by a declaration, signed by them, that the work has been done and the theses or memoirs composed by themselves.

GENERAL.

XII. Candidates who produce certificates that they have satisfied all the conditions prescribed by this Ordinance, and who have passed the necessary examinations, are entitled to receive the degrees of B.Sc. in Public Health and D.Sc. in Public Health, as the case may be, on payment of the fees required.

XIII. Students who, at the time when these Regulations come into operation, have completed a part of their course of study with a view to graduation in Science in Public Health in the University of Edinburgh, under regulations in force at the time therein, and thereafter completes the course of study and passes the necessary examinations in conformity with such regulations, or with the provisions hereof may become candidates for the degree of B.Sc. in Public Health.

XIV. The degrees of B.Sc. and D.Sc. in Public Health are in no case conferred on persons who have not complied with the conditions hereinbefore set forth, and are not conferred *honoris causâ tantum.*

IV.—AGRICULTURE.

D.—REGULATIONS AND CURRICULUM FOR GRADUATION IN AGRICULTURE.

Candidates who began attendance on Qualifying Science Classes before 1st October 1893, *are referred to Calendar* 1895-96, *or to previous Calendars.*

[1] The Thesis must be lodged on or before 20th January of the year in which the candidate proposes to graduate.

I. A degree of Bachelor of Science in Agriculture is conferred by the University of Edinburgh.

I. Preliminary Examination.

II. Every candidate for the degree of B.Sc. in Agriculture must pass the Preliminary Examination[1] prescribed for Degrees in Pure Science; and the conditions imposed with respect thereto by the said Regulations are applicable in all respects to the Degree in Agriculture, except as follows:—The Preliminary Examination must be passed before the candidate presents himself for any part of the First Science Examination, but not necessarily before the candidate enters on his curriculum.

Courses of Instruction.

III. (1) Candidates must, in the course of not less than three Academical years (*i.e.* three Winter Sessions, or two Winter Sessions and three Summer Sessions), attend at least eleven courses of instruction in subjects prescribed for examination under Section VIII. hereof.

(2) It is the duty of the Senatus to determine from time to time which of the said courses are full courses and which are half courses respectively, and also to determine the number of meetings of which such full courses and half courses respectively shall consist, and to report its determination to the University Court for its approval.

IV. (1) Five full courses or their equivalent (counting two half courses as one full course) must be taken in the University of Edinburgh, and must include the course in Agriculture and Rural Economy.

(2) The remainder of the said courses may be taken in other Universities or Institutions approved by the University Court, or under teachers recognised by the University Court for purposes of graduation in Science in Agriculture:[2] Provided that the fees for attendance at an approved Institution in Edinburgh or under a recognised teacher there must not be less than the fees exigible for the corresponding courses in the University of Edinburgh.

(3) Residence and practical work at a farm is required of each candidate to such an extent and under such regulations as the Senatus, with the approval of the University Court, may from time to time appoint.[3]

V. The University Court may make regulations to enable candidates, not matriculated students of the University of Edinburgh, availing themselves of the permission to attend lectures at approved Institutions or by recognised teachers in Edinburgh, to obtain, on payment of a fee not exceeding in amount the matriculation fee paid by the students of the University, a right to the use of the Library of the University.

VI. (1) It is the duty of the Professors and Lecturers annually, at the end of each winter session, to submit to the Senatus a scheme specifying what proportion of the courses is to be devoted to lectures,

[1] See page 215.
[2] See footnote, page 217.
[3] Residence and Practical work at a farm must be not less than twelve months.

practical demonstrations, examinations, and tutorial work respectively. The Senatus transmits such scheme, with such observations as it may think fit to make thereon, to the University Court for its approval.

(2) It is the duty of the Professors and Lecturers annually at the end of each winter session to submit to the Faculty of Science, for its consideration, a syllabus of the subjects and books proposed for the work of their classes during the next Academical year. The Faculty of Science transmits such syllabus, with such observations as it may think fit to make thereon, to the Senatus for its approval.

VII. The provisions of the preceding section do not apply to approved institutions or recognised teachers outside Edinburgh; but the University Court will not grant or continue recognition to any Institutions or teachers unless it is satisfied that their courses of instruction are equivalent to the courses sanctioned in the University of Edinburgh, where such exist.

VIII. The subjects of study are as follows :—

1. Mathematics, or Biology (*i.e.* Zoology and Botany).
2. Natural Philosophy.
3. Chemistry.
4. Agriculture and Rural Economy.
5. Agricultural Chemistry.
6. Geology.
7. Veterinary Hygiene.
8. Agricultural Entomology.
9. Economic Science as applied to Agriculture.
10. A course in one of the following :—(*a*) Forestry; (*b*) Experimental Physics; (*c*) Engineering.
11. Engineering Field Work.

II. Science Examinations.

(*a*) *First Science Examination.*

IX. (1) There is a First Science Examination in the three following subjects—viz. (1) Mathematics, or Biology (*i.e.* Zoology and Botany); (2) Natural Philosophy; (3) Chemistry.

(2) The examination in all these subjects is the same as the examination in these subjects for the degree of B.Sc. in Pure Science, as specified in the Regulations therefor.

The following courses in this University qualify for the First Science Examination in Agriculture :—

1. (1) Senior Mathematics of 100 Lectures, as for the degree in Pure Science, or (2) Biology (Zoology, Botany) as for Pure Science.

2. Natural Philosophy, as for Pure Science.

3. Chemistry, full course, including Practical Chemistry, as for Pure Science.

(3) Candidates may present themselves in any one or more of the subjects of the First Science Examination at any examination held after they have attended a full course in the subject or subjects professed.

(*b*) *Final Science Examination.*

X. (1) There is a Final Science Examination in the remaining subjects (4 to 11 inclusive) specified in Section VIII. hereof.

(2) Candidates may present themselves in any one or more of these subjects at any examination held after they have passed the whole of the subjects comprised in the First Science Examination, and have attended the required courses in the subjects professed.

The following courses qualify for the Final Science Examination in Agriculture :—

1. Agriculture and Rural Economy—Full course of about 100 Lectures and 10 Field Demonstrations.

2. Agricultural Chemistry—Full course (including Lectures and Practical Work) of about 100 hours.

3. Geology—Half-course of 25 Lectures, 10 Demonstrations in Laboratory, and 8 Field Demonstrations.

4. Veterinary Hygiene—Half-course of about 50 Lectures.

5. Agricultural Entomology—Half-course of about 20 hours.

6. Economic Science, as applied to Agriculture—Half-course of about 40 Lectures—the Political Economy Class in Arts till Christmas.

7. A course in one of the following :—

(*a*) Forestry—Full course of about 100 Lectures.

(*b*) Experimental Physics—Full Laboratory course of 100 hours.

(*c*) Engineering—Full course of about 100 hours.

8. Engineering Field Work :—Half-course, extending over three weeks, 75 hours—Lectures, Drawing Office, and Field.

XI. If a student, before passing the Preliminary Examination, has attended a class qualifying for graduation, the Senatus may, on special cause shown, permit him to count such class for graduation, on condition of his passing the full Preliminary Examination within such time thereafter as the Senatus may appoint, and in every such case the Senatus reports to the University Court the reasons for the relaxation.

XII. A candidate for the degree of B.Sc. in Agriculture shall not be deemed to have attended a class as part of the curriculum for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

GENERAL.

XIII. Candidates who produce certificates that they have satisfied all the conditions prescribed by these Regulations, and who have passed the necessary examinations, will be entitled to receive the degree of B.Sc. in Agriculture, on payment of the fees required.

XIV. A student who, at the time when these Regulations came into operation, had completed a part of his course of study with a view to graduation in Science in Agriculture in the University of Edinburgh, under regulations in force at the time therein, and who thereafter completes his course of study and passes the necessary ex-

aminations in conformity with such regulations, or with the provisions of these Regulations, may become a candidate for the degree of B.Sc. in Agriculture.

XV. The degree of B.Sc. in Agriculture shall in no case be conferred on persons who have not complied with the conditions hereinbefore set forth, and shall not be conferred *honoris causâ tantum*.

OUTLINE OF SUBJECTS OF EXAMINATION.

FIRST BACHELOR OF SCIENCE EXAMINATION.

1. (*a*) MATHEMATICS, or (*b*) BIOLOGY (*i.e.* ZOOLOGY and BOTANY).

2. NATURAL PHILOSOPHY.

3. CHEMISTRY, including Practical Chemistry.

The Examinations are the same as for the First B.Sc. in Pure Science.

FINAL BACHELOR OF SCIENCE EXAMINATION.

1. AGRICULTURE AND RURAL ECONOMY: ITS SCIENTIFIC PRACTICE.

1. *Definition of Agriculture.*—Aid given by the Allied Sciences.

2. *Surface Geology.*—Formation and Classification of Soils—their Physical and Chemical Properties. Importance of Organic Nitrogen. Indications of good or bad Soils—the Methods of Management.

3. *Drainage.* — Its Practice and Advantages — Irrigation—Wet-Warping — Mixing or Top-Dressing—Claying—Marling—Chalking—Liming—Paring and Burning—Clay-Burning. The Effect on Soils of Cultivation and the Growth of Plants.

4. *Implements and Machines of the Farm.*—The Importance of their proper Construction and Careful Management.

5. *Steam Cultivation.*—Its Advantages and Disadvantages.

6. *The Motive Powers Employed on the Farm.*—1st, Man; 2d, Horse; 3d, The Mechanical Powers (Water, Wind, and Steam)—their Comparative Values and Advantages.

7. *Farm Servants.*—Their Labour and Wages — Day-work and Piece-work. Detailed and total costs of Horse and Hand Labour.

8. *The Importance of Rotations.*—Different Rotations and reasons why they are adopted—Systems of Farming.

9. *Our Farm Crops* (Grain, Root, Forage, and Hay Crops).—Their Selection and Growth—Prevention of Insect Injuries and Diseases.

10. *Identification of Grasses and other Valuable Pasture Plants.*—Character and Habits of those of importance—Detection of Adulterations.—Regulations necessary to protect the Farmer in buying Seeds.

11. *The Management of Permanent Pasture.*—Proper Methods of making new Pasture—its After-treatment.

12. *Weeds in Pastures* and Means of Destroying them.

13. *Silage and the System of Ensilage.*—Its Advantages, &c.—Its Suitability and Unsuitability according to Locality.

14. *Manures.*—Farm-yard Manure — its proper Mixing, Storing, and Application—its great advantage as a General Manure. Special Manures and so-called Artificials — their Uses, Abuses, and Adulterations — the proper Times and Methods of their Application. The Value and Use of Liquid Manure and Town Sewage.

15. *Buildings and Fences.*—The proper Construction of Fences—the General Arrangement of Farm-Buildings—the best Flooring and Inside Plans and Dimensions of Byres, Cattle-Sheds, Stables, &c.—Covered Yards—Ventilation—Drainage of Houses and Farm-yards.

16. *Live-Stock, embracing Cattle, Pigs, Horses, Sheep.*—The Various Breeds of each, and suitability of some to Local Conditions—"The Principles of Breeding." Feeding and Management—Cost of Feeding—Proper Mixtures of Food to Use. Cost of the Production of a Stone of Beef, Mutton, and Pork, showing the Amount of Profit in each Case.

17. *Dairying in all its Branches*, including the suitability or otherwise of surrounding Conditions—the proper Classes of Dairy Stock to keep, and their Management—the Treatment of Milk, and its Sale or Manufacture into Cheese, Butter, &c.

18. *Feeding Stuffs.*—Suitability of the Common Food Substances to the Different Classes of Farm Stock—The Purchase, Storing, and Administration of the same—their Manurial Residues.

2. Agricultural Chemistry.

1. *Atmosphere.*—Relation of its Constituents and Conditions to Plant Life.

2. *Soils.*—Origin, Formation, Composition, Biology, Amelioration.

3. *Plants.*—Constituents, Germination, Nutrition, Maturation, Symbiosis.

4. *Manures.*—Nature, Uses, Application, Valuation, Compatibility, Exhaustion.

5. *Crops.*—Classification, Relation, Preservation, Uses as Fodder, Residual Value.

6. *Animal Nutrition.*—Nutritive Processes, Laws of Flesh and Fat Production, Digestibility of Fodders, Nutrient Ratio, Relation of Food to Work and to Manure.

7. *Dairy.*—Composition of Dairy Products, Circumstances affecting Quantity and Quality, Scientific Management.

Tests for the detection of Potassium, Sodium, Ammonium, Magnesium, Calcium, Aluminium, Iron, Arsenic, Antimony, Copper, Lead, Mercury.

Sulphate, Sulphite, Sulphide, Phosphate, Carbonate, Nitrate, Chloride, Acetate, Oxalate, Tartrate, Citrate.

Sugars, Starches, Fats, Proteids.

Chemical, Physical, and Microscopic Tests for Adulteration in Manures, Feeding Stuffs, and Dairy Produce.

Methods of determining of Clay, Sand, Carbonates, Humus, and Moisture in Soils.

Phosphoric Acid, Potash, Nitrogen, Lime, Magnesia, Insoluble Matter and Moisture in Soils and Manures.

Albumen, Amides, Fat, Carbohydrates, Woody Fibre, and Ash in Fodders.

3. Geology.

(1.) *Physical Geography and Dynamical Geology.*—The nature and operation of Geological agents:—Rain, Underground Water, Rivers, Ice, the Sea, Life, Earthquakes, Volcanoes, Movements of Upheaval and Depression.

(2.) *Mineralogical and Petrological Geology.*—Characters of the principal Rock-forming Minerals: Composition, Origin, and Distribution of the more important and commonly occurring Rocks.

(3.) *Structural Geology.*—The Structure of Rock-masses, more especially Bedding, Joints, Faults, and Denudation.

(4.) *Agricultural Geology.*—Nature and Origin of Soils and Subsoils; Draining in connection with Geological Structure; Mineral substances used as Manures.

4. Veterinary Hygiene.

1. The Comparative Osteology (rudimentary) of the Horse, Ox, and Sheep.

2. The Physiology of Dentition in Horse, Ox, Sheep, and Pig, more especially as indicative of the Age of the Animal.

3. The Physiology of Gestation; the Diseases incidental to the pregnant state, and also those consequent to the act of parturition.

4. Description of the Digestive Organs of the Horse, Ox, and Sheep (separately), also their Physiology, and most ordinary Diseases.

5. Contagious and other Diseases of Farm Stock. Prevention and Treatment of Diseases.

5. Agricultural Entomology.

Insect pests of cultivated plants and of farm live stock. Methods of prevention of, and of remedy for, their attacks. Classification of insects, and details of their structure and life history, in so far as of economic importance.

6. Economic Science as applied to Agriculture.

1. The Food Supply of the United Kingdom. 2. The Wages of Agricultural Labour. 3. The Profits of the Farmer. 4. The Rent of

Land and Causes of Variations in Rent. 5. Contracts for the Hire of Land. 6. The Risks of Long Leases. 7. Compensation for Improvements. 8. Fixity of Tenure and its Effects. 9. The Prices of Agricultural Produce. 10. Foreign Competition. 11. Effects of the Appreciation of Gold and the Depreciation of Silver. 12. Effects of various Imperial and Local Taxes on Agriculture.

7 (*a*). Forestry.

1. *Sylviculture.*—Atmosphere, Climate, and Soil, as affecting Forest Vegetation; shape and development of forest trees; pure and mixed woods; the sylvicultural systems; formation and tending of woods.
2. *Injuries to Standing Woods and their Protection.*—Winds and storms, fires, animals, fungi, weeds, frost, snow, &c.
3. *Utilisation of Produce.*—Drought.
4. *Structure, Classification, and Technical Properties of Timber.*
5. *Forest Organisation.*—The principles on which working plans are based.
6. *Uses and Effects of Forests.*

7 (*b*). Experimental Physics.

The Measurement of Physical Constants, such as—Gravitation, Specific Gravity, Specific Heat, Conductivity, Dilatation, Refractive Index, Magnetic and Electric Quantities, &c.

7 (*c*). Engineering.

1. *Mechanics.*—(*a*) Principles of Statics; couples; moments of forces; parallel and inclined forces; centre of gravity; moments of inertia; friction. (*b*) Principles of Kinematics and Kinetics; Newton's laws of motion; Conservation and transformation of energy.
2. *Strength and Properties of Structural Materials*, including their fitness and adaptability, together with some knowledge of their cost.
3. *Strength and Stability of Structures.*—General knowledge of the design, construction, and maintenance of Roads, Roofs, Bridges, Embankments, Retaining Walls, Aqueducts, and General Buildings.
4. *Hydraulics.*—The laws governing the flow of water in open and closed channels, and its discharge through orifices; Systems of Drainage and Irrigation; Pumps, &c.
5. *Mechanism and Machinery.*—General Principles and means of transmission, conversion, and modification of motion; general millwright work with special reference to the machines ordinarily employed for agricultural purposes.
6. *Prime Movers.*—A knowledge of the sources and modes of estimating power; The Steam Engine; Pneumatic Machines; Hydraulic Motors, Water-wheels, Turbines, &c.

8. Engineering Field Work.

Surveying, with special reference to Estate and Parish Surveying, Levelling, Gauging of Streams and Rivers, Plotting of Surveys and Sections, Setting out of Work, and Calculation of Quantities.

FEES FOR EXAMINATIONS FOR DEGREES.

1. Preliminary Examination.

The Fee is 10s. 6d. for each appearance.

2. Fees for Examinations or for Registering Equivalents.

(1) *Pure Science and Engineering—*

First B.Sc. Examination, (or for each subject, £1, 1s.)	£3 3 0
Second B.Sc. Examination,	3 3 0
Doctor of Science,	10 10 0
	£16 16 0

(2) *Public Health—*

First B.Sc. Examination,	£3 3 0
Second B.Sc. Examination,	3 3 0
For the Degree of Doctor,	10 10 0
	£16 16 0

(3) *Agriculture—*

First B.Sc. Examination, (or for each subject, £1, 1s.)	£3 3 0
Second B.Sc. Examination,	3 3 0
	£6 6 0

Candidates for the Degree of B.Sc. who fail to pass pay a fee of 10s. 6d. for re-examination in each subject, and Candidates for D.Sc. pay a fee of £5, 5s. for each re-examination.

Every Candidate for Graduation must pay the Fee of £1 for Registration as a Member of the General Council of the University, at least one clear day before the date of Graduation.[1]

All communications relating to the Curriculum and Examinations for Degrees, Fellowships, Scholarships, &c., in Science should be addressed to *The Dean of the Faculty of Science*, University, Edinburgh.

All Examination, Matriculation, and Registration Fees are payable at the *Matriculation Office*, University. Candidates may pay the Fees personally, or transmit them to T. Gilbert, by *Post Office*, or *Postal Orders*, or by *Bank Drafts*, crossed "Union Bank of Scotland (Hunter Square Branch), Edinburgh," and not by cheques on private accounts.

[1] Candidates should apply for their Diplomas at the Matriculation Office, immediately after obtaining the Degree. There is no additional charge for the Diploma. Any Graduate who cannot apply personally for his Diploma, is required to give written authority to some person to receive and give a receipt for it.

DATES OF EXAMINATIONS, FOR PRESENTING CERTIFICATES, AND PAYMENT OF FEES.[1]

Preliminary Examination.[1]

1897.		
Sept. 17.	Fri.	Names to be given in, and Fees paid, *on or before* this date.
,, 24.	Fri.	Italian, 2-5.
,, 25.	Sat.	English, 9-11, 12-2; Lower Greek, 3-6.
,, 27.	Mon.	Lower Latin, 9-12.
,, 28.	Tu.	Higher Latin, 9-11, 12-2; French, 1st paper, 3-4.30.
,, 29.	Wed.	Higher Greek, 9-11, 12-2; German, 1st paper, 3-4.30.
,, 30.	Thur.	Higher Mathematics, 9-11, 12-2; French, 2nd paper, 3-5.
Oct. 1.	Fri.	German, 2nd paper, 9-11; Dynamics, 1-4.
1898.		
Mar. 1.	Tu.	Names to be given in, and Fees paid, *on or before* this date.
,, 25.	Fri.	Italian, 2-5.
,, 26.	Sat.	English, 9-11, 12-2; Lower Greek, 3-6.
,, 28.	Mon.	Lower Latin, 9-12.
1897.		
Mar. 29.	Tu.	Higher Latin, 9-11, 12-2; French, 1st paper, 3-4.30.
,, 30.	Wed.	Higher Greek, 9-11, 12-2; German, 1st paper, 3-4.30.
,, 31.	Thur.	Higher Mathematics, 9-11, 12-2; French, 2nd paper, 3-5.
April 1.	Fri.	German, 2nd paper, 9-11; Dynamics, 1-4.

First Science Examination.[1]

1897.		
Oct. 1.	Fri.	Names to be given in, Certificates shown, and Fees paid, *on or before* this date.
,, 7.	Thur.	Mathematics, 9-11, 11.30-1.30; Natural Philosophy, 2.30-4.30.
,, 8.	Fri.	Natural Philosophy, 9-11; Mathematics for Engineering, 11.30-1.30, 2.30-5.30.
1898.		
Mar. 8.	Tu.	Names to be given in, and Fees paid, *on or before* this date.

[1] When names are not entered, nor fees paid, on or before the stated dates, a late-entry fee of ten shillings must be paid before the Candidate can be admitted to examination. A Candidate is not held to have entered for the examination until his name is entered, all the necessary certificates, &c., lodged, and the fee paid.

Mar. 18.	Fri.	Certificates to be examined.
,, 19.	Sat.	Practical Chemistry, at hours to be announced (also on subsequent days if necessary).
,, 21.	Mon.	Chemistry, 10-12; Oral Examination may begin; Laboratory Work (Public Health), 10-12; Physics (Public Health), 1-3.
,, 22.	Tu.	Zoology, 10-12; Botany, 1-3; Geology (Public Health), 1-3.
,, 23.	Wed.	Practical Work in Public Health Laboratory begins.
,, 30.	Wed.	Mathematics, 3-5.
,, 31.	Thur.	Mathematics, 9-11; Drawing (Geometrical), 9-12.
April 1.	Fri.	Natural Philosophy, 9-11, 11.30-1.30.
July 8.	Fri.	Names to be given in, and Fees paid, *on or before* this date.
,, 15.	Fri.	Certificates to be shown.
,, 16.	Sat.	Practical Chemistry at hours to be announced (also on subsequent days if necessary).
,, 18.	Mon.	Chemistry, 10-12; Oral Examination may begin. Laboratory Work (Public Health), 10-12; Physics (Public Health), 1-3.
,, 19.	Tu.	Zoology, 10-12; Botany, 1-3; Geology (Public Health), 1-3.
,, 20.	Wed.	Practical Work in Public Health Laboratory begins.

FINAL SCIENCE EXAMINATION.[1]

1897.		
Oct. 1.	Fri.	Names to be given in, Certificates shown, and Fees paid, *on or before* this date.
,, 8.	Fri.	Zoology, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.
,, 9.	Sat.	Astronomy, 9-12 (1st paper), 1-3 (2nd paper).
1898.		
Mar. 8.	Tu.	Names to be given in, and Fees paid, *on or before* this date.
,, 16.	Wed.	Economic Science (Agriculture), 9-11.
,, 18.	Fri.	Certificates to be examined.
,, 21.	Mon.	Botany, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged; Veterinary Hygiene, 1-3. Medicine (Public Health), 10-12; Sanitary Law, 1-3; Vital Statistics, 4-6.
,, 22.	Tu.	Sanitation, 10-12, 1-4; Geology (Agriculture and Engineering), 1-3.

See footnote 1, page 249.

Mar. 23.	Wed.	Physiology, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged. Agriculture, 9-12; Agricultural Chemistry, 1-3; Practical Examination in Agricultural Chemistry, at time to be arranged. Oral and Practical Examinations in Public Health subjects begin.
,, 28.	Mon.	Mathematics, 9-12, 2-5; Engineering, 9-11, 3-5.
,, 29.	Tu.	Mathematics, 9-12; Natural Philosophy, 2-5; Engineering, 9-12; Engineering Field-Work (Agriculture), 3-5; Dynamics (Engineering), 2-5.
,, 30.	Wed.	Natural Philosophy, 9-12, 2-5; Experimental Physics, 9-12; Engineering, 9-11; Engineering (Agriculture), 9-11; Experimental Physics (Agriculture), 3-5.
,, 31.	Thur.	Agricultural Entomology, 9-11; Forestry, 11.30-1-30; Drawing (Engineering), 9-12, 2-5.
July 8.	Fri.	Names to be given in, and Fees paid, *on or before* this date.
,, 15.	Fri.	Certificates to be examined.
,, 18.	Mon.	Chemistry, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.
1898.		
July 19.	Tu.	Geology, 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.
,, 20.	Wed.	Human Anatomy (including Anthropology), 9-12 (1st paper), 1-3 (2nd paper); Practical Examination at time to be arranged.

Doctor of Science.[1]

D.Sc. Candidates are required to lodge their Theses and proof of their eligibility with the *Dean of the Faculty of Science* at the Matriculation Office, and to pay the Fees on or before 20th January of the year in which they propose to graduate.

[1] See footnote 1, page 249.

Degrees in Science.

DOCTORS OF SCIENCE.

The names of the Doctors of Science previously to 1889, will be found in the Historical Appendix to List of Graduates published in 1889, pp. 132-134. The following are the names of the Doctors from 1889 to 1897, both years included :—

In Mental Science.

1891. William Mitchell, M.A.
,, Robt. Mark Wenley, M.A.
1892. Chas. Mackinnon Douglas, M.A.
,, Jas. Lewis M'Intyre, B.A.
1893. William Ingram, M.A.
1893. Purnananda Chatterji.
1894. William Caldwell, M.A.
1895. John Gunn, M.A.
,, Sydney Herbert Mellone, B.A.

In Philology.

1893. Harry Angus Alexander Kennedy, M.A.
1894. George Barnet Gardiner, M.A.

In Pure Science.

1889. Thomas Rhymer Marshall (Chemistry).
1890. Alex. Crichton Mitchell.
,, Hugh Marshall.
1891. William Cossar Mackenzie.
,, Thomas Smith Murray.
1892. Jacques François Marais, B.A. (Chemistry).
1893. John Shields (Chemistry).
1894. Malcolm Laurie, B.Sc.
,, Charles Hunter Stewart, M.B., C.M., B.Sc.
1895. Arthur Pillans Laurie, B.Sc.
1896. John Carruthers Beattie, B.Sc.
,, John Charles Mitchell, B.Sc.

In Public Health.

1890. James Anderson, M.D.
,, James Andrew Blair, M.B.
,, William John Brock, M.B.
,, John Stevenson, M.B.
1892. Charles Henry Bedford, M.D.
,, Robt. Wm. Dickinson Mac-Martin Cameron, M.D.
,, Alex. C. Houston, M.B., C.M.
,, William George Aitchison, Robertson, M.D.
1893. Edward Henry Ezard, M.D.
,, John Howard-Jones, M.B.
,, John Fred. Joseph Sykes, M.B.
,, James Buchanan Young, M.B.
1894. Henry Halcro Johnston, M.D.
,, John Macmillan, M.A., M.B., C.M.
,, Charles Templeman, M.D.

Degrees Conferred in 1896-97.

THE DEGREE OF DOCTOR OF SCIENCE.

In Pure Science.

1st August 1896.

John Carruthers Beattie, B.Sc. *Thesis*—"On the Behaviour of Bismuth Plates in a Steady Magnetic Field."

John Charles Mitchell, B.Sc. *Thesis*—"The Fish Fauna of the Lower Nile."

THE DEGREE OF BACHELOR OF SCIENCE.

1st August 1896.

Robertson Borthwick.
George Burns.
George Percy Lishman.
Subodh Chandra Mahalanobis.
William Percy Meldrum.
James Miller.
Alexander Howard Pirie.
George Robertson.
Andrew Cameron Smith, M.A.

10th April 1897.

Leopold Octavius Critchley, M.A.
George Ednie, M.A.
John Spencer Low.
William Elisa Malherbe.
James Masson, M.A.
James William Mathewson.
James Young Simpson, M.A.
James Thomas Young.

In Engineering.

10th April 1897.

William Blackadder.
Hector Elie de Boissière.
Alexander George Gordon Cumming.
Wilfrid Joseph Dilley.
Ellice Martin Horsburgh, M.A.
John Stuart Ker.

In Public Health.

1st August 1896.

Robert Craig Dun, M.B., C.M.
George Henry Masson, M.B., C.M.

10th April 1897.

Patrick Hunter Gillies, M.B., C.M.
Rhodes Haygarth, M.B., C.M.
Herman Schmitz, M.D.

In Agriculture.

10th April 1897.

Philip Arthur Salomons.

Fellowships, Scholarships, Bursaries, Prizes, &c., in Science.

I.—FELLOWSHIPS.

I.—THE FALCONER MEMORIAL FELLOWSHIP.

This Fellowship was founded in 1869 by the Subscribers to the Fund for a Memorial to Hugh Falconer, M.D. (for many years Superintendent of the H. E. I. Company's Botanic Gardens at Suharunpoor and Calcutta), and the Association for the better Endowment of the University of Edinburgh, for the encouragement of the Study of Palæontology and Geology. It is of the annual value of £114, and is tenable for two years, but if the Senatus see fit, it may be held for three years, and with consent of the University Court, for four years. It is awarded after competitive examination in Natural History as applied to Palæontology and Geology, and is open to Graduates in Science or Medicine of this University of not more than three years' standing at the time of the competition. It cannot be held along with any other Fellowship, Scholarship, or Bursary in any Scottish University. The Deed of Foundation will be found at p. 270 of the CALENDAR for 1870-71. The next appointment may be made in July 1898.

1895. *John S. Flett, M.A., B.Sc., M.B., C.M.*

II.—GEORGE HERIOT FELLOWSHIP.

A Fellowship, for Research in Mathematical, Physical, Experimental and Natural Science, is open annually. For further particulars see under Faculty of Arts.

II.—SCHOLARSHIPS.

I.—BAXTER PHYSICAL SCIENCE SCHOLARSHIP.

This Scholarship was founded by Sir David Baxter, Bart., of Kilmaron, in 1865, and is of the annual value of £76, 6s. 10d., tenable for two years. It is awarded, on the result of the Final Examination for the Degree of Bachelor of Science, to the student who is most distinguished in two or more of the Physical Science subjects—viz., Mathematics, Natural Philosophy, Astronomy, Chemistry, either in the year preceding a vacancy, or in the year in which a vacancy occurs. The holder is required to satisfy the Senatus Academicus that he has been pursuing his studies in Science during the first year of his tenure in such a manner as the Senatus may fix. It cannot be held with any other Scholarship, Fellowship, or Bursary, or with any situation yielding an annual income of £100. Next vacancy in 1898.

1896. *George Robertson, B.Sc.*

II.—BAXTER NATURAL SCIENCE SCHOLARSHIP.

This Scholarship was founded by Sir David Baxter, Bart., of Kilmaron, in 1865, and is of the annual value of £76, 6d. 10d., tenable for two years.

It is awarded, on the result of the Final Examination for the Degree of Bachelor of Science, to the Student who is most distinguished in two or more of the Natural Science subjects—viz., Human Anatomy, including Anthropology; Physiology, including Histology; Geology, including Mineralogy; Zoology, including Comparative Anatomy; Botany, including Vegetable Histology, either in the year preceding a vacancy, or in the year in which a vacancy occurs. The holder is required to satisfy the Senatus Academicus that he has been pursuing his studies in Science during the first year of his tenure in such manner as the Senatus may fix. It cannot be held with any other Scholarship, Fellowship, or Bursary, or with any situation yielding an annual income of £100. Next vacancy in 1898.

1896. *Longfield Smith, B.Sc.*

III.-VIII.—VANS DUNLOP SCHOLARSHIPS.

These Scholarships are each of the annual value of £100, and are tenable for three years, on condition that the scholar submits annually—(1) A certificate of attendance on lectures or laboratories approved by the Senatus; or (2) a certificate of having acted as an assistant to a Professor in this or some other University; or (3) a written report of his work done during the year, together with a Thesis composed by himself in connection with some part of that work. For General Regulations, see under Faculty of Arts.

III.—MATHEMATICS.[1]

The next Competition will take place in April 1898.

IV.—NATURAL PHILOSOPHY.[1]

The next Competition will take place in April 1898.

V.—AGRICULTURE AND RURAL ECONOMY.

This Scholarship is open to all Matriculated Students who have regularly attended classes in this University for not less than two and not more than six years, and who have attended the Class of Agriculture and Rural Economy within one year of the date of Competition. The subjects of Examination are Agriculture, Chemistry, Botany, and Veterinary Science. The next Competition will take place in March 1898.

The Examiners are the Professor of Agriculture and an Examiner nominated by the Senatus.

1895. *J. W. Paterson, B.Sc.*

VI.—CHEMISTRY.

(1). The subjects of Examination are—(*a*) Inorganic and Organic Chemistry, and the connection between the Chemical and Physical character of Substances. (*b*) Qualitative and Simple Quantitative Analysis of Inorganic Substances, and the Preparation of Pure Chemical Substances. (2.) The Examination in subjects (*a*) is similar,

[1] For particulars, see "Scholarships" in Faculty of Arts.

and held at the same time, as that for the Second B.Sc. Examination. The Examination in subjects (*b*) is conducted practically in the Laboratory. (3.) The Competition is open to all Students of the University, from the second to the sixth year (inclusive) of their attendance, and will take place in July 1900.

VII.—NATURAL HISTORY, INCLUDING GEOLOGY AND BOTANY.

(1.) The subjects Natural History, Geology, and Botany are coequal in the Examination, and the Examination in each of the three subjects is similar to that for the Second B.Sc. in Pure Science, and consists of two parts—a Written Examination extending over not less than three hours, and a Practical Examination with specimens.

(2.) The next Examination will be held in April 1898, at the same time as the Second B.Sc. Examination.

(3.) The Competition is open to all Students of the University, from the second to the sixth year (inclusive) of their attendance.

1895. *J.A. Murray, B.Sc.*

VIII.—ENGINEERING AND MECHANICAL AND USEFUL ARTS.

The Examination is similar to that for the Second B.Sc. in Engineering, with the addition of questions on prescribed books treating of Engineering and Mechanical and useful Arts.

The Competition is open to all Matriculated Students who have been in regular attendance on the Class of Engineering for at least two Winter Sessions, and who have not been Students of the University for more than four years. The next Competition will take place in April 1900.

The Examiners are the Professors of Engineering and Natural Philosophy.

1897. *William Blackadder, B.Sc.*

IX.—STEVEN SCHOLARSHIP IN AGRICULTURE.

This Scholarship was founded in 1882 by the Misses Steven of Bellahouston in memory of their brother Moses Steven, Esq. It is of the value of £75, and is awarded annually, in connection with the Class of Agriculture, the subjects of examination being Agriculture and General and Agricultural Chemistry.

The Scholar is required to visit the annual exhibitions of the four leading agricultural societies, or such as the Professor of Agriculture shall appoint, and to report on his visit or visits to the satisfaction of the Professor of Agriculture. The Exhibitions which the Scholar is required to visit are:—

The Royal Agricultural Society of England.
The Bath and West of England Agricultural Society.

The Highland and Agricultural Society of Scotland.
Royal Agricultural Society of Ireland.
See Deed of Foundation at p. 397 of CALENDAR for 1882-83.
1897. *W. Bruce and J. O. Peet—equal.*

X., XI.—HOPE PRIZE SCHOLARSHIPS.

Two Hope Prize Scholarships have been instituted (with funds formerly of the Hope Chemistry Prize founded by the late Professor Thomas C. Hope) in connection with the Chemical Laboratory of the University, each of the value of about £50 per annum, tenable for one year, and awarded annually at the end of the Winter Session. Each Scholarship is awarded to the student whom the Professor of Chemistry thinks most deserving of those who have worked during that Winter Session in the Chemical Laboratory of the University. The scholars must work during the Summer and Winter Sessions succeeding their appointment in the Chemical Laboratory of the University, and must assist the Professor of Chemistry in such manner as he thinks fit in each case, and the scholars are not required to pay fees for the laboratory. In case of resignation of a scholar, or of a scholar failing to fulfil the conditions, the Professor of Chemistry may, if he thinks proper, recommend a student working in the Chemical Laboratory for the remainder of the Scholarship so become vacant, the new scholar so appointed to perform the duties and receive the payments during the remainder of the time for which his predecessor was appointed. Scholars may, in cases of great distinction, be appointed for a second year.

1897. *David F. Chalmers.* | *Ralph Marshall.*

XII.—NEIL ARNOTT SCHOLARSHIP IN EXPERIMENTAL PHYSICS.[1]

Is awarded annually in April.

XIII.—THE MACKAY SMITH SCHOLARSHIPS.

These Scholarships were at first intended to have been held in Edinburgh and Glasgow Universities alternately, and were so held in Edinburgh for the Sessions 1883-84 and 1884-85, and in Glasgow for the Sessions 1885-86 and 1886-87. It was, however, afterwards arranged, instead of the Scholarships alternating between the two Universities, that the proceeds of the present investment should be divided—one half being retained by the University of Edinburgh, and the other half transferred to the University of Glasgow, so that each University now acts independently. The portion of the proceeds at present falling to Edinburgh is £50 annually, which provides one Scholarship in Natural Philosophy and one in Chemistry, each of the annual value of £25, tenable for two years, and to be held under such

[1] For particulars see "Scholarships" in Faculty of Arts.

regulations and conditions as the Senatus may from time to time direct. The Scholarship in Natural Philosophy is open for competition to Students who have attended the Class of Natural Philosophy, and the Scholarship in Chemistry to Students who have attended the Class of Chemistry, both in this University. The successful Candidate for the Scholarship in Natural Philosophy is bound to attend the Class of Natural Philosophy, or to prosecute the study thereof, in the University during at least one year of his tenure of the Scholarship, in such way as the Senatus may direct or approve; and the Scholarship in Chemistry is held under similar conditions as regards attendance on the Class of Chemistry, and the prosecution of the study thereof. The next Competition for these Scholarships will take place at the end of Winter Session 1897-98.

1896. *J. H. H. Pirie* (Chem.). | *Alexander Brown* (Nat. Phil.).

XIV.—ROYAL COMMISSION FOR EXHIBITION OF 1851 PHYSICAL SCIENCE SCHOLARSHIP.

The Commissioners for the Exhibition of 1851 give this University the power of nominating a Student to a Scholarship of £150 a-year, tenable for two years, and which may be extended to three years under the following conditions, viz. (*a*) That he is a British subject; (*b*) That he has been a *bona fide* student of Science in this University for three years; (*c*) That he has been for a full year previous to his appointment, and at the date of his appointment is, a student of the University, or has been a student of the University for a full year ending within twelve months prior to the date of his appointment, and since ceasing to be such student has been engaged solely in scientific study. The Scholarship is limited to those branches of Science (such as Physics, Mechanics, and Chemistry) the extension of which is specially important for the national industries, and may be tenable in any University or other Institution to be approved by the Commissioners. Applications must be made annually not later than the 1st of March. See Regulations, p. 544 of CALENDAR for 1891-92.

XV., XVI.—THE ARTHUR TREVELYAN SCHOLARSHIPS IN ENGINEERING.

Two Arthur Trevelyan Scholarships in Engineering, of about £15, 12s. per annum, for proficiency in Engineering and the Mechanical and useful Arts, tenable in this University for two years. Candidates must not be more than nineteen years of age, must have passed the preliminary examination or its equivalent; and must not have attended more than one winter and one summer course in Engineering and field work respectively, either in this University or elsewhere. The subjects of examination are (*a*) Mathematics, as far as the subjects required for the first B.Sc. examination in Engineering; (*b*) Physics to the same extent;

(*c*) Engineering (the subjects of the previous winter session and field work); (*d*) geometrical drawing and elementary graphics. See Excerpt from Deed, page 538 of CALENDAR for 1892-93. One Scholarship is awarded annually in November.

1897. *David Stevens.*

XVII., XVIII.—MISSES BAXTER OF BALGAVIES SCHOLARSHIPS.

These Scholarships were instituted in 1868 and 1878 by Miss Mary Baxter of Balgavies. They are three in number, two of the annual value of £40, the third of £20. They are in the gift of the Directors of the High School of Dundee, and are open for competition to all pupils of that school who shall have finished their course at the time, or within one year previously. The examination is held in Dundee by examiners appointed by the Directors, and the subjects are Geometry, Algebra, Trigonometry, and Mechanical Drawing. The Scholarships are tenable for one year certain, and for a second if a favourable certificate is sent to the Directors by the Senatus Academicus. The patrons may extend the tenure of these Scholarships for a further period of one year, provided the holder shall have previously passed the First Examination for the Degree of Bachelor of Science in the Department of Engineering in this University. The Classes to be attended during the first two years are Mathematics, Natural Philosophy (two courses), Engineering (two courses), and Chemistry, and may (by resolution of the Senatus), be attended in any order most convenient to the scholar, provided he intimate his intentions to the Dean of the Faculty of Science beforehand. In the event of a third year's tenure, the Scholar may attend any two classes selected by himself and approved by the Senatus.

These Scholarships are not to be held with any other Scholarship, Fellowship, or appointment yielding £50 per annum. *See* Deeds of Foundation, at page 255 of the CALENDAR for 1869-70, at p. 372 of CALENDAR for 1878-79, and at p. 377 of the CALENDAR for 1881-82.

XIX. GRAY SCHOLARSHIP FOR RESEARCH.[1]

THE WILLIAM DICKSON TRAVELLING FUND.[1]

This is a fund for the purpose of assisting Graduates of any Faculty, of not more than three years' standing, to travel for the purpose of study or research.

THE SWINEY LECTURESHIP ON GEOLOGY.

This Lectureship is in the patronage of the Trustees of the British Museum, and is of the annual value of £144. The Trustees may appoint any Graduate in any Faculty of the University who has

[1] For particulars, see under "Scholarships" in Faculty of Arts.

obtained his degree after examination. The office is tenable for five years, at the expiration of which period the Lecturer is ineligible for the next election. The number of lectures is not to be less than twelve in each year, nor more than three in the same week. The course is required to be annually delivered between the first of November and the end of July following, at such public places in the United Kingdom as the Trustees shall approve. The public are admitted without fee. The Lecturer is required at the termination of each course to deposit a copy, or full extract of such course of lectures, with the Principal Librarian of the British Museum, to whom application may be made for further particulars.

Of the foregoing Fellowships, Scholarships, Bursaries, and Prizes, the following are open during the Winter Session 1897-98.[1]

FELLOWSHIPS.[1]

1. *The Falconer Memorial Fellowship*, No. I., page 254.
2. *George Heriot Fellowship*, No. II., p. 254.

SCHOLARSHIPS.[1]

3-5. *Four Vans Dunlop Scholarships.*—For General Regulations, see FACULTY OF ARTS.

3. *Vans Dunlop Scholarship in Natural Philosophy*, No. IV., page 255. The next Examination will begin on 29th March 1898, at 2 P.M., and will be (in as far as convenient and practicable) combined with the Examination for Honours in the Department of Mathematics. Names of Candidates to be entered *on or before* 15th March.

4. *The Vans Dunlop Scholarship in Mathematics*, No. III., page 255. In addition to the ordinary Honours Examination, papers will be set on special subjects. The questions, some of which will be texts for short dissertations, will be set so as to allow the Candidate to specialise his reading in one or other of the following lines :—(*a*) Higher Algebra (Salmon), I. -XVII.), Higher Parts of Differential and Integral Calculus—for example, Definite Integrals, Fourier's Theorem, Elliptic Integrals, Differential Equations (Forsyth); (*b*) Theory of Invariants (Salmon, I.-XVII.), Projective Geometry, Higher Plane Curves (Salmon, Chapters I.-V.); Geometry of Three Dimensions (Salmon, Chapters I.-XIII.), The Professor of Mathematics will give advice regarding a course of reading for the examination. The Examination will begin on 28th March 1898, at 9 A.M. Names of Candidates to be entered *on or before* 15th March.

[1] For further information, and for information regarding other Fellowships, Scholarships, Bursaries, and Prizes, see above, where full information regarding the conditions and values, &c., are given. The values of the Fellowships, Scholarships, Bursaries, and Prizes are subject to variation consequent on the rise and fall of the rate of interest, &c.

5. *The Vans Dunlop Scholarship in Natural History, Botany, and Geology*, No. VII., page 256. The next competition will take place in March 1898; Zoology, 25th March, 10; Botany, 1; Geology, 26th March, 10. Names of Candidates to be given in *on or before* 15th March.

6. *The Vans Dunlop Scholarship in Agriculture*, No. V., page 255. The next Competition will take place in April 1898, at dates to be afterwards announced. Names of Candidates to be entered *on or before* 15th March.

7. *Royal Commission for Exhibition of* 1851 *Physical Science Scholarship*, No. XIV., page 258.

8, 9. *The Baxter Natural and Physical Science Scholarships*, Nos. I. and II., page 254.

10, 11. *Two Hope Prize Scholarships*, Nos. X. and XI., page 257.

12. *The Mackay Smith Scholarship in Natural Philosophy*, No. XIII., page 257. The Examination will take place at the same time as the Examination in Natural Philosophy for the ordinary Degree of M.A. (1st April 1898 from 9-11 and 11.30-1.30). Names to be entered at the Matriculation Office *on or before* 15th March.

13. *The Mackay Smith Scholarship in Chemistry*, No. XIII., page 257. The Examination will be held on 25th March 1898, at 10 o'clock A.M. Names of Candidates to be entered at the Matriculation Office *on or before* 15th March.

14. *Steven Scholarship in Agriculture*, No. IX., page 256. Candidates to enter names *on or before* 15th March.

15. *Neill Arnott Scholarship for Experimental Physics*, No. XII., page 257.

16. *Arthur Trevelyan Scholarship in Engineering*, No. XV., page 258. Names of candidates to be entered on or before 15th October.

17, 18. *Two Misses Baxter of Balgavie Scholarships*, Nos. XVII. and XVIII., page 259. For particulars apply to Directors of High School, Dundee.

Competitors for Fellowships and Scholarships must have studied the subjects of Examination at the University of Edinburgh. No Fellowship or Scholarship can be held along with any other University Fellowship or Scholarship.

BURSARIES.[1]

1, 2. *Two Sibbald Bursaries.*[2]
3-7. *Five Heriot Bursaries.*[2]
8. *Renton Bursary.*[2]
9. *The Donald Fraser Bursary,*[2] of £51.
10. *A Baxter of Balgavies Bursary.*[2]

University Bursaries cannot be held along with any other Bursary.

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[1] See footnote 1, page 260.
[2] See under Faculty of Arts.

PRIZES.[1]

1. *The Gunning Victoria Jubilee Prize in Botany.*[2]
2, 3. *Two Newton Bursaries or Prizes.*[3]
4. *The Kelland Memorial Prize.*[3]
5. *The Lord Rector's Prize.*[3]
6. *The Ellis Prize in Physiology.*[2]
7, 8. *Two Gray Prizes.*[3]
9. *Edinburgh University Club of London Prize*, of twenty guineas, for the best Essay on the following subject: "A full examination, with comparisons and contrasts, of the properties which we must suppose the Ether to possess in order to account for the phenomena ascribed to its agency." Essays to be lodged with the Secretary of the Senatus on or before 1st November 1897, each bearing a motto, and accompanied by an envelope containing the name, address, and University standing of the Candidate.

WILLIAM DICKSON TRAVELLING FUND.

The William Dickson Travelling Fund, page 178.

EARL OF MORAY'S BEQUEST FOR THE PROMOTION OF ORIGINAL RESEARCH. See page 178.

N.B.—*Scholars, Bursars, or Fellows must apply to the Dean of the Faculty of Science, for Certificates to entitle them to draw the instalments of Science Scholarships, &c., and to the Factor for payment thereof, within three months after they have become payable, otherwise they will be regarded as having resigned. Any who desire to resign must at once announce this to the Dean and to the Factor.*

JAMES GEIKIE, D.C.L., LL.D., F.R.S., &c.,
Dean of the Faculty of Science.

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[1] See footnote 1, page 260.
[2] See under Faculty of Medicine.
[3] See under Faculty of Arts.

Programme of Classes.

FACULTY OF DIVINITY.

1897-98.

Dean—Professor TAYLOR.

The Classes will be opened as follows, and will close on 18th March 1898.

Classes.	Days of Opening, and Hours of Lectures.	Professors.	Class Fees.[1]
Divinity.....	26 Oct., 12 o'cl.	Prof. Flint, ...	£3 3
Ecclesiastical History.	26 Oct., 11 ,,	Prof. Taylor,....	3 3
Biblical Criticism.....	26 Oct., 10 ,,	Prof. Charteris,.	3 3
Hebrew—Junior Cl. .	26 Oct., 1 ,,	Prof. Kennedy,.	3 3
Senior Cl. .	26 Oct., 2 ,,	.....	3 3
Arabic—Junior Class. (*Mond., Wed., & Frid.*)	27 Oct., 3 ,,	.....	3 3
Syriac—Senior Class. (*Tues. & Thurs.*)	26 Oct., 3 ,,	.....	2 2

THE SUMMER PREPARATORY CLASSES IN ELEMENTARY HEBREW AND ELEMENTARY ARABIC, conducted by the Assistant under the superintendence of the Professor, open on 3rd May, at 10 A.M. and 11 A.M. Fee for Hebrew, £1, 11s. 6d.; and for Arabic, £2, 2s.

GIFFORD LECTURESHIP, for "promoting, advancing, teaching, and diffusing the study of Natural Theology in the widest sense of that term." *Lecturer*—Professor C. P. TIELE, of Leyden.

The arrangements for the Course in 1897-98 will be announced before the beginning of the Session.

GUNNING VICTORIA JUBILEE LECTURESHIP IN NATURAL SCIENCE. *Lecturer*, HUGH MACMILLAN, D.D., LL.D.

This Course of Three Lectures will be delivered in December 1897, at dates to be afterwards announced.

CURRICULUM FOR THE MINISTRY IN THE CHURCH OF SCOTLAND.

The Laws of the Church of Scotland require that every Theological Student, who desires to qualify himself for the Ministry, should attend the Class of *Divinity*, either during *three full and*

[1] For Second and Third Attendances in Divinity, no reduction. Subsequent attendances free. For Second Attendances on Hebrew, Ecclesiastical History, and Biblical Criticism, no reduction. Subsequent attendances free. Fee in case of Licentiates of Foreign and Colonial Churches, £2, 2s.

regular Sessions, or during *two regular and three partial Sessions*;—and also that he should regularly attend during two Sessions each of the Classes of *Hebrew*, *Ecclesiastical History*, and *Biblical Criticism.*

Entrance Examinations.

(1.) Students, before enrolment *for the first year* of their curriculum with a view to the Ministry in the Church of Scotland, must produce to the Professor of Divinity Certificates of their having satisfactorily undergone an Examination in the subjects embraced in the *Curriculum of Arts*, and also in the Elements of Hebrew Grammar. By Act IX. of General Assembly 1872, it is ordained that this Examination shall be conducted at each of the four Scottish Universities, shortly before the commencement of every Session, by four Examining Committees, consisting of members elected by the adjoining Synods, with Conveners nominated by the General Assembly. *The Convener of the Committee for the University of Edinburgh is the Rev. John Alison, D.D., Minister of Newington.* The time of the Committee's meeting and the prescribed subjects of Examination will be timeously advertised in the *Mission Record* of the Church of Scotland.

(2.) Students, before enrolment at the beginning of *every Session after the first* of their course in Divinity, must produce certificates of their having satisfactorily undergone the Examinations prescribed by their respective Presbyteries. For subjects of Examination prescribed by the *Presbytery of Edinburgh*, see *Appendix to Calendar.*

Discourses.

Every Student of Divinity is required during his curriculum to deliver with approbation *six* Discourses upon subjects prescribed by the Professor of Divinity, viz., a Homily, a Latin Thesis, a Lecture, a popular Sermon, a Hebrew Exercise on a passage of the Old Testament, and an Exercise with additions on a passage of the Greek New Testament.

The following Regulations have been made by the Faculty of Theology in regard to the delivery of these Discourses. (1.) Students of the *first* year shall give in their *Homily* to the

Professor of Divinity not later than 1st February ; (2.) Students of the *second* year shall give in their *Latin* Thesis not later than the 18th December, and shall be prepared to deliver their *Lecture* not later than the 10th January ; (3.) Students of the *third* year shall give in their *Hebrew Exercise* and their *Greek Exercise* with additions, not later than the 18th December, and shall be prepared to deliver their *Popular Sermon* not later than the 2nd of February.

Attendance at Foreign Universities.

The General Assembly of 1868, with the consent of a majority of Presbyteries, enacted and ordained :—(1.) That all Candidates for the ministry shall attend during at least *two sessions* the Theological Classes at one or more of the Universities of Scotland, and shall deliver, with approbation, the Six Trial Discourses required by the Acts of the General Assembly ; and (2.) That any Student who wishes to prosecute the remainder of his Theological Curriculum at any Protestant University or Universities not within the bounds of this Church, shall, before repairing thither, undergo satisfactory examination by the Presbytery with which he is connected, and shall, moreover, satisfy the same Presbytery in regard both to the Classes which he proposes to attend, and to the proficiency he has acquired in the language used in the Foreign University in which he intends to study.

Courses in the Faculty of Divinity.

I. DIVINITY.

PROFESSOR FLINT.

The course of study in this class extends over three Sessions. The Subjects of the Lectures during 1897-98 will be :—1. The Kingship and Kingdom of Christ. 2. The Christian Church. 3. The Word and Sacraments. 4. General View of Practical Theology. 5. The Work of the Holy Spirit. 6. The Christian Life. 7. General View of Ethics. 8. Agnosticism.

Lectures will be delivered on Mondays, Tuesdays, Wednesdays, and Thursdays at 12 o'clock. Fridays will be devoted

partly to the hearing of Discourses and Exercises, and partly to Lectures. There will be occasional examinations on "Anti-theistic Theories."

The work of the class includes two written examinations and an essay.

II. HEBREW AND SEMITIC LANGUAGES.

PROFESSOR KENNEDY.

A.—HEBREW.

Junior Class—1 *to* 2.

This class is conducted in two divisions, an upper and a lower. The latter is intended for students having no previous acquaintance with Hebrew, the former for those who have advanced as far as § 30 of the text-book. The Lower Junior will meet for the first time on the day appointed for the opening of the Arts classes, and thereafter on five days a week with the Professor or the Assistant. Text-books: Davidson's *Introductory Hebrew Grammar*, and the book of Genesis in Hebrew.

The Upper Junior will meet for the first time on the day appointed for the opening of the Divinity classes, and thereafter on three days a week with the Professor or the Assistant. On these days the class will continue the study of the Grammar, including parts of the Syntax (Davidson's *Hebrew Syntax*), and read easy prose passages from the Old Testament. On two days a week the two divisions will meet together for the revision of the Grammar, and for practice in translation into Hebrew.

The students' progress is regularly tested by oral and written examinations throughout the Session.

For Preparatory Class of Elementary Hebrew (see page 263).

Senior Class—2 *to* 3.

Study of Davidson's *Hebrew Syntax*. Hebrew Prose Composition. Reading of unpointed texts (Baer's *Pentateuch*).

Reading and Exposition of portions of the Historical, Poetical, and Prophetical Books of the Old Testament. For Session 1897-98, Exodus, i.-xx.; Psalms, Book iii.; Zechariah.

Discussion of *Critical and Historical* Questions connected with the Books read.

Oral and Written Examinations.

The Senior Hebrew Class will be the Graduating Class in Hebrew for the Ordinary Degree of Master of Arts; and any student who desires to attend this Class with a view to Graduation in Arts must previously pass an examination, in accordance with Sect. IV. subs. 3 of the Regulations.

The examination will include plain passages for translation from and into Hebrew, and grammatical questions.

Those who propose, in a subsequent Session, to take up Hebrew as one of their Graduation Subjects, will have an opportunity of attending the Junior Class in that language during the Session 1897-98.

B.—Arabic—3 *to* 4.

The course of instruction in Arabic extends over one summer and two winter Sessions.

(1) A Preparatory Class for elementary Arabic is conducted during the Summer Session by the Assistant, under the superintendence of the Professor. *Intending students of Arabic are strongly advised to take this Class.* Text-books: Socin's *Arabic Grammar* (New Edition, 1895) and Jacob's Bible Chrestomathy. The fee is £2, 2s.

(2) A Junior Class in continuation of the above, meeting three days a week in *alternate* sessions (next in 1897-98). Text-books: Socin's *Grammar* and Bruennow's *Chrestomathy of Arabic Prose-pieces* (1895). Elementary Arabic Composition.

(3) A Senior Class, meeting three days a week in *alternate* sessions (next in 1898-99), for more advanced reading in prose and poetry, and for the Study of Arabic syntax and composition. Text-books (besides those already mentioned): The Koran (Fluegel's edition), Nallino's *Chrestomathia Coranica*, Noeldeke and Mueller's *Delectus Veterum Carminum Arabicorum* (1890), Wright's *Arabic Grammar* (3rd edit., 1896).

The fee for each of these classes is £3, 3s.

C.—SYRIAC—3 *to* 4.

The Course of instruction in Syriac extends over two winter Sessions.

(1) A Junior Class, meeting on two days a week in *alternate* sessions (next in 1898-99), for the study of the Grammar and the reading of portions of the Syriac gospels. Text-books: Nestle's *Syriac Grammar* (1889), Syriac New Testament (Peshittâ).

(2) A Senior Class, meeting on two days a week in *alternate* sessions (next in 1897-98), for the study of syntax and composition and for more advanced reading in prose and poetry, such as the extracts from Bar-Hebræus and Ephrem Syrus in Roediger's *Chrestomathy* (3rd edit.) and the *Vitæ Prophetarum* in Nestle's *Grammar*.

The fee for each of these classes is £2, 2s.

III. ECCLESIASTICAL HISTORY.

PROFESSOR TAYLOR.

1. *Lectures*—Mondays and Tuesdays.—On The Beginnings of Christianity.

2. *Lectures*—Wednesdays and Thursdays.—On The Reformation in Scotland to 1572.

3. *Text-Book*—Fridays.—Kurtz's "History of the Christian Church." First Division; First Section.

The work of the class includes three written examinations.

For the Regulations of the Vans Dunlop Scholarship in "History,"—value about £100 annually for three years,—see under "SCHOLARSHIPS IN ARTS" and "SCHOLARSHIPS IN DIVINITY."

IV. BIBLICAL CRITICISM AND BIBLICAL ANTIQUITIES.

PROFESSOR CHARTERIS.

It is intended to occupy next Session, so far as time and circumstances may permit, with (i.) Critical and Historical Lectures on some Books of the *Old Testament*. (ii.) Exegetical and Critical Lectures on the *New Testament*. (iii.) A full Course

of Textual Criticism of the *New Testament* (Scrivener's "Introduction" recommended, Hammond's "Outlines" may also be used). (iv.) Lectures on the Formation of the *New Testament* and its Canon (with the Professor's text-book "Canonicity") (v.) Historical and Critical Lectures on Apocryphal Books.

There will be written and oral examinations, in which all regular students are required to take part; and subjects of occasional voluntary essays will also be suggested.

LECTURESHIPS.

I.—GIFFORD LECTURES ON NATURAL THEOLOGY.

Lecturer—Professor C. P. TIELE of Leyden.

These Lectures were endowed by the late Adam Gifford, Senator of the College of Justice, "for promoting, advancing, teaching, and diffusing the study of Natural Theology in the widest sense of that term."

According to the Trust Deed, "the lecturers appointed shall be subjected to no test of any kind, and shall not be required to take any oath, or to emit or subscribe any declaration of belief, or to make any promise of any kind; they may be of any denomination whatever, or of no denomination at all; they may be of any religion or way of thinking, or, as is sometimes said, they may be of no religion; or they may be so-called sceptics or agnostics or free-thinkers;—provided only that the 'patrons' will use diligence to secure that they be able reverent men, true thinkers, sincere lovers of and earnest inquirers after truth. I wish the lecturers to treat their subjects as a strictly natural science, the greatest of all possible sciences, indeed, in one sense, the only science,—that of Infinite Being, without reference to or reliance upon any supposed special exceptional or so-called miraculous revelation. The lecturers shall be under no restraint whatever in their treatment of their theme. The lectures shall be public and popular, that is, open not only to students of the Universities, but to the whole community, without matriculation."

II.—THE GUNNING VICTORIA JUBILEE LECTURESHIP.

Lecturer—HUGH MACMILLAN, D.D., LL.D.

With a view to promote the study of Natural Science among candidates for the ministry, and to bring out among ministers the fruits of study in Science, Philosophy, Language, Antiquity, and Sociology, Dr R. H. Gunning, of Edinburgh and Rio de Janeiro, has founded a Lectureship in the Faculty of Divinity of the University of Edinburgh, to be known as "The Gunning Victoria Jubilee Lectureship."

The Gunning Lectureship is a triennial appointment of the value of £100, and the appointment shall be made by the Faculty of Divinity. The lecturer may be any Scottish Presbyterian clergyman at home, or in the Mission field, eminent in Science, Philosophy, Language, Antiquity, or Sociology, and the Lectures may be delivered in the University of Edinburgh, or such other place as the Faculty may appoint.

The next appointment will be made at the close of Session 1898-99. See Revised Scheme, p. 519 of CALENDAR 1889-90.

Graduation in Divinity.

REGULATIONS FOR GRADUATION IN DIVINITY.

(Candidates who began the study of Divinity with a view to Graduation before 1st October 1896 are referred to the CALENDAR *for 1896-97 and to previous* CALENDARS.)

I. No one is admitted to examination as a Candidate for the Degree of Bachelor of Divinity (B.D.) unless he be (1) a Graduate in Arts of the University, and have taken a complete Theological Course in a Scottish University or Universities, or in an institution or institutions specially recognised for the purpose by the University Court, or partly in a Scottish University or Universities and partly in such institution or institutions; or (2) a Graduate in Arts of any Scottish University or other University specially recognised as aforesaid, and has completed his Theological Course, of which not less than two years' attendance has been given in this University.

II. The Examiners are the Professors of the subjects included in the examinations, and two additional Examiners appointed by the Uni-

versity Court. The mode of conducting the examination is fixed from time to time by the Senatus Academicus.

III. The subjects of examination are arranged in two departments: —The First Department embracing—(1) Hebrew, and (2) Apologetic Theology, or the Evidences of Natural and Revealed Religion; and the Second Department embracing (1) Ecclesiastical History, (2) Systematic Theology, and (3) Biblical Criticism and Biblical Antiquities.

IV. Every Student who at the time when these Regulations came into operation had completed a part of his Theological Course with a view to Graduation as B.D., under Regulations hitherto in force, and shall thereafter complete his course of study in conformity with such Regulations, may become a Candidate for the Degree of B.D. without complying with the provisions of these Regulations.

V. The Degree of B.D. is in no case conferred on persons who have not complied with the conditions hereinbefore set forth, and is not conferred *honoris causâ tantum*.

Candidates are required to communicate their names, together with evidence of their being qualified in terms of the above Regulations, to the Dean of the Faculty of Divinity, at least one week before the first day of the Examination.

The subjects of examination for 1897-98 are as follows:—

DEPARTMENT I.

A.—*For October* 1897.

I. *Hebrew*—

(1.) Questions in Grammar.
(2.) Translation into Hebrew Prose.
(3.) Micah, Nahum.
(4.) Psalms, Book ii. (Psalms xliii.-lxxii.).
(5.) Deuteronomy i.-xviii. (the unpointed text).

B.—*For April and October* 1898.

(1 and 2.) As above.
(3.) Zechariah.
(4.) Psalms, Books iii., iv. (Psalms lxxxiii.-cvi.).
(5.) Exodus, i.-xx. (the unpointed text).

Candidates will be expected to show some knowledge of the history from the call of Isaiah to beginning of the Exile, and of the textual and historical criticism of the books prescribed.

II. *Apologetic Theology*—

(1.) Materialism and Positivism.
(2.) The Preparation in History for Christianity.
(3.) The Life and Work of Christ in relation to Apologetics.

DEPARTMENT II.

I. *Ecclesiastical History*—

(1.) The Main Facts in the Development of the Constitution, Doctrine, and Worship of the Church from 100 to 451

A.D. (2.) The History of the Church in Scotland during the 17th Century.

II. *Systematic Theology*—
(1.) The Sources of Christian Doctrine, and the Place, Functions, Method and History of Christian Dogmatics.
(2.) The Doctrines of the Trinity and Incarnation.
(3.) The Doctrine of the Atonement.

III. *Biblical Criticism and Biblical Antiquities*—
Manuscripts, Versions, and the more important Disputed Passages of the New Testament. (As in Scrivener's "Introduction.") (A selected list of passages will be furnished.)
Introduction to Old Testament; and Professor Robertson's "Early Religion of Israel."
Introduction to Epistles of S. Paul and S. Peter.
"Canonicity," Introduction.

FEES.

Fee for Degree of B.D., . . .	£5 5
When the Examination is taken at two periods—	
The Fee for the First is . . .	3 3
For the Second, ...	2 2

Any Candidate who fails to pass pays a fee of 10s. 6d. for re-examination in each subject.

Time-Table and Dates of Entering for Examinations, 1897-98.[1]

1897.

Oct. 12.	Tu.	Names to be entered and fees paid *on or before* this date.[1]
,, 19.	Tu.	Hebrew, 10 a.m.; Apologetics, 2 p.m.
,, 20.	Wed.	Ecclesiastical History, 10 a.m.; Divinity, 2 p.m.
,, 21.	Th.	Biblical Criticism, 10 a.m.

1898.

Mar. 22.	Tu.	Names to be entered and fees paid *on or before* this date.[1]
,, 29.	Tu.	Hebrew, 10 a.m.; Apologetics, 2 p.m.
,, 30.	Wed.	Ecclesiastical History, 10 a.m.; Divinity, 2 p.m.
,, 31.	Th.	Biblical Criticism, 10 a.m.

Every Candidate for Examination or for Graduation must matriculate for the Academic year in which he appears for Examination or for

[1] When names are not entered, nor fees paid, on or before the stated dates, an additional or late-entry fee of ten shillings must be paid before the Candidate can be admitted to examination. A Candidate is not held to be entered for the Examination until his name is entered, the fee paid, and all the necessary certificates, &c., lodged.

Graduation, and pay the Fee of £1 for Registration as a Member of the General Council (if not already a Member) *at least one clear day before the date of Graduation.*

The fees for Matriculation, for Examinations for Degrees, and for Registration of Graduates as Members of the General Council, are payable at the Matriculation Office, University. When Candidates cannot attend personally to pay the fees, they should transmit them to T. GILBERT, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed "*Union Bank of Scotland* (*Hunter Square Branch*), *Edinburgh*," and not by cheques on private accounts.

THE DEGREE OF BACHELOR OF DIVINITY.

10th April 1897.

James Little Buchanan, B.A.
Peter Campbell, M.A.
John Adamson Clark, M.A.
Thomas Milne Dey, M.A.
James Wallace, M.A.

DEGREE OF DOCTOR OF DIVINITY (D.D.).[1]

The Degree of Doctor of Divinity is conferred *honoris causâ tantum*, —and is granted in absence in special cases only. The Register of Doctors of Divinity begins in 1709, with the names of Edmund Calamy, Daniel Williams, and Joshua Oldfield. The names of Evans, Harris, and Isaac Watts follow in 1728. The Register now includes above 300 names.

The following is a list of those who have received the Degree of Doctor of Divinity in the years 1889-97 inclusively[2]:—

1889.

*Griffith John.
*Professor Abraham Kuenen.
Archibald Henry Sayce, M.A.
Norman M. L. Walker.

1890.

David Douglas Bannerman.
R. H. Lundie, M.A.
Canon J. H. Overton.

1891.

Richard Glover.
Robert Hutton, M.A.
*John Gibson Paton.
D. W. Simon, M.A., Ph.D.

1892.

William Balfour.
Cornelius Giffen.
Newham Hall.

1893.

Thomas Nicol, B.D.
Thomas B. W. Niven.
George Adam Smith.
James Wells, M.A.

1894.

William Hastie, M.A., B.D.
J. A. M'Clymont, M.A., B.D.

[1] Those to whom the Degree has been offered, if unable to be present at the Graduation Ceremonial immediately ensuing, may present themselves at any subsequent ceremonial, on giving at least a week's notice.

[2] The names of those who received the Degree, prior to 1859, will be found in the "Catalogue of the Graduates in the Faculties of Arts, Divinity, and Law of the University, since its foundation," published in 1858, and the names of those who received the Degree from 1859 to 1888, both years included, will be found in the List of Graduates, published in 1889.

* Conferred *in absentia*.

J. C. M'Phail.
William Muirhead.

1895.

Robert G. Balfour.
*Alexander Marshall, M.A.
Charles Moinet, M.A.
John Patrick, M.A., B.D.
J. Guinness Rogers, B.A.
*David Sidey.

1896.

Rev. David Clement Scott, M.A., B.D.
Rev. Alexander Williamson.

1st August 1896.

The Rev. Charles Gore, M.A., Fellow of Trinity College, Oxford; Canon of Westminster.
The Rev. William Miller, C.I.E., LL.D., Principal of Christian College, Madras.

10th April 1897.

Rev. Professor H. M. Gwatkin, M.A., University of Cambridge.
Rev. J. B. Hastings, M.A., Palmerston Place U.P. Church, Edinburgh.
Rev. Professor W. P. Paterson, M.A., B.D., Professor of Divinity, University of Aberdeen.
Rev. R. J. Sandeman, M.A., St Andrew's Free Church, Edinburgh.

Bursaries, Scholarships, Fellowships, &c.

I.—BURSARIES.

A.—Presentation Bursaries.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	Years.	Annual Allowance to each Bursar.	Patrons.
I.	1703	Agnes Nairne.	£3 0 0	1	1	..	Senatus Academicus.
II.	1715 1764	Sir James M'Lurg of Vogrie, sometime Dean of Guild of Edinburgh; and Rev. John Penman, Minister of Bothkennar.	20 0 0	1	4	£20 6 8	Capt. R. G. G. Gilmour of Craigmillar, 1st and 3rd Presentations. The Dean of Guild of Edinburgh, 2nd Presentation. Heirs of William Brown, surgeon, 4th Presentation.
III.	1766	Rev. Robert Alexander, Minister of Girvan.	About 19 0 0	1	4	About 19 0 0	Kirk-Session of Girvan and Presbytery of Ayr.
IV.	1838	Robert Blair, D.D., Barton St Andrews, Norfolk	16 0 0	1		16 0 0	Governors of George Heriot's Trust.
V.	1838	Do. Do	About 23 0 0	1	4	About 23 0 0	The Principal, and Profs. of Hebrew, Divinity, Church History.

* Conferred *in absentia.*

I. In abeyance at present.

II. The *M'Lure and Pearson Bursary* is tenable for four years at the Theological Classes. No person shall be presented to the Bursary who is not a Master of Arts of a Scottish University.

III. This Bursary consists of the interest of £420, lent on heritable security, and of £75, 17s. of accumulated interest. It must be held by a Student from the parish of Girvan, presented by the Session; whom failing, by one within the Presbytery of Ayr, to be appointed by the Presbytery.

IV. The *Blair Bursary* can be held only by a young man who has been brought up in George Heriot's Hospital School, and has become a Student of Divinity in the University of Edinburgh.

V. To be applied for the benefit of a Student in Divinity, whether a graduate or not. *Bursar*—1895, *J. R. Spottiswood.*

B.—Competition Bursaries.[1]

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	Tenure. Years.	Annual Allowance to each Bursar.	Patrons.
I.	1646	Bachanan of that Ilk	£— 16 4	1	1	£— 16 4	Town Council.
II.	1666	William Struthers &	23 7 9	1	3	23 7 9	Do.
	1685	Archbishop Leighton.					
III.	1687	Andrew Ramsay and Sir Andw. Ramsay of Abbotshall.	16 13 4	1	3	16 13 4	Do.
IV.	1695	King William III.	50 0 0	2	2	25 0 0 About	Senatus Academicus.
V.	1867	Miss Mary Ettles of Inverness.	109 0 0	3	3	36 6 8	Senatus.
VI	1673	Grierson of Ogscastle's Trustees.	80 0 0	3	1	26 13 4 About	Senatus.
VII.	1878	Mrs Isabella Webster.	150 0 0	(2	3	50 0 0	Senatus.
				(1	3	33 7 4	
VIII.	1878	Dr Andrew Thomson	100 0 0	4	4	25 0 0	Trus. of Dr Thomson.
IX.	1879	Mrs Barbara Mylne	30 0 0	1	3	30 0 0	Moderator, Procurator, and Principal Clerk of General Assembly.
X.	1838	J. Stewart Hepburn of Colquhalzie, Esq.	13 2 6	1	3	13 2 6	Committee of the Presbytery of Edin.
XI.	1858	Do. Do.	13 2 6	1	3	13 2 6	Do.
XII.	1864	Do. Do.	13 2 6	1	3	13 2 6	Do.
XIII.	1882	William Renton.	20 0 0	1	3	20 0 0 About	Profs. of Theology.
XIV.	1884	Robert Hunter.	33 15 0	2	2	16 17 6	Principal and Profs.
XV.	1889	James Simson, Edinburgh.	175 0 0 About	7	3	25 0 0 About	Presbytery of Edinburgh.
XVI.	1892	Thomas Lockerby, London.	32 0 0	1	3	32 0 0	Senatus.
XVII.	1856	John Sharp, Esq., Perth.	18 0 0	1	4	18 0 0	The Presbytery of Perth.

[1] The values of these Bursaries are subject to deduction of the fees paid to the Examiners.

I. The Buchanan Bursary is open for competition to all Masters of Arts of any of the Universities of Scotland, or to Students who have passed the necessary Examinations for the Degree of M.A., but have deferred their Graduation with a view to Honours, and who are entering on their first or second Session in the Faculty of Divinity in the University of Edinburgh. No person is admissible to competition who has for more than one Session been a Student in the Faculty of Divinity in any of the Scottish Universities. The Bursar holds the Bursary for three years, subject to this condition, that he shall, during that period, give regular attendance, as a Student of Theology, in the University. If it appears to the Senatus Academicus desirable, for the purpose of distributing the benefits of competitive Bursaries in Theology among Students of different years, it is lawful, for that purpose only, to appoint a Student for a shorter period. No person can hold the Bursary along with any other Bursary, Fellowship, or Scholarship in any Scottish University. *Bursar*—1896, *William Marshall Low, M.A.*

II. The Struthers and Leighton Bursary is open by competition to all Students who are Masters of Arts, or who have passed all the examinations necessary for admitting them to the degree of Master of Arts, and who are entering on their first session of attendance in the Faculty of Divinity in the said University.—Vacant.

III. By Ordinance, No. 81, of the Univ. Com., and subsequent Order in Council, the regulations for this Bursary are the same as those for the Buchanan Bursary. —Vacant.

IV. By Ordinance, No. 76, of the Universities' Commissioners, and subsequent Order in Council, each King William Bursary is open to competition to all Masters of Arts of any of the Universities of Scotland, or Students who have passed the necessary examinations for the Degree of M.A., and who have attended for one Session, and no more, in the Faculty of Divinity in the University of Edinburgh: Provided that no person shall be a competitor who has attended for one or more Sessions in the Faculty of Divinity in any other of the Scottish Universities. The examinations in the competition shall be conducted by the Professors in the Faculty of Divinity in the University. Each Bursar shall hold his Bursary for two years, subject to the condition that he shall, during that period, give regular attendance as a Student of Theology in the University. No person shall hold either of the Bursaries along with any other Bursary, Fellowship, or Scholarship of any Scottish University. When the two Bursaries fall vacant at one time, one Bursar shall be appointed for two years, and the other for one year. *Bursar*—1896, *W. L. Webster.*

V. Founded in memory of her brother, J. Ettles, Esq., of Havannah. Open to those who have passed all the examinations for M.A., and are in the first year of their theological course. Cannot be held with any other Bursaries or Scholarships. *See* Deed of Foundation in CALENDAR for 1867-68. *Bursar*—1896, *John Chalmers, M.A.*

VI. As in the case of the Faculty of Arts (see No. XLVII.), a student from the parishes of Crawford or Leadhills, is, if found duly qualified in respect of attainments, appointed to a Bursary in his first year, and holds it (unless he has failed to show himself a diligent student) to the end of his Theological curriculum. Failing any student from those favoured parishes, the Bursary or Bursaries will be thrown open to competition, but the winner only holds his Bursary for one year in each

case. In the second and third years a student from Crawford or Leadhills has again a preference, but holds the Bursary for one year only. *See* p. 372 of CALENDAR, 1877-78. *Bursar*, 1896—First year, *Charles G. Mackenzie, M.A.*

VII. Founded by Mrs Isabella Webster, 38 Heriot Row, Edinburgh, in memory of her husband, George Webster, Esq. There are three Bursaries,—two of about £43 each, and one of £37, 10s., open to Students of Divinity in connection with the Church of Scotland in their first year, who have successfully passed all their Examinations for the degree of M.A. in any Scottish University, whether they have actually graduated or not. Each is tenable for three years. *See* Deed of Foundation in CALENDAR for 1878-79, p. 377. *Bursars*—1895, *A. W. Gordon, M.A.* 1896, *George D. Shepherd, M.A.*

VIII. *Preferential Candidates* for the Thomson Bursaries must apply to Messrs Traquair, Dickson & Maclaren, 11 Hill Street. Candidates of the name of Thomson or Traquair, or natives of the town or county of Dumfries, or of the city of Edinburgh, preferred. The subjects of Examination are Latin and Classical Greek, Mathematics and Natural Philosophy, Mental Philosophy (including Logic) and Moral Philosophy and Elementary Hebrew, Apologetics, and Greek Testament. *See* p. 374 of CALENDAR for 1880-81. *Bursars*—1895, *William Simpson, M.A.* 1896, *Alex. R. Yeoman, M.A.*

IX. *Mylne Bursary.*—Founded by Mrs Barbara Macaulay or Mylne, in memory of her husband, the Rev. Andrew Mylne, minister of the parish of Dollar. The Bursary (being the free proceeds of £750) which is for behoof of Students for the ministry of the Church of Scotland, of Scottish birth, tenable during the curriculum in Divinity, is awarded at the end of the session, after examination (of first year's students) on the subjects taught in the Theological Classes during the session. No one may become a Candidate who has not given his whole time to study during the session preceding the date of Examination, nor may the holder engage in paid work during any session in which he holds the Bursary. It cannot be held along with any other Bursary, Scholarship, or Endowment. *See* Deed of Foundation at page 377 of CALENDAR for 1880-81—Vacant.

X., XI., and XII. The sums attached to these Bursaries are payable to Divinity Students of the Church of Scotland of the first or second year towards the expense of their education at the University of Edinburgh. Each is tenable for three years. For one bursary Gaelic-speaking students have a preference.

XIII. Founded by the late William Renton, of 20 Royal Terrace, Edinburgh. The Faculty of Theology are the Patrons and Trustees. The Bursary may be held for three years, if the Bursar continues so long to prosecute his studies in Theology at the University of Edinburgh, with a view to the ministry in the Church of Scotland, and if not, then for the whole period he continues at the same. The student presented must have attained the age of sixteen, and not exceed the age of twenty-one years, and must be appointed after an examination in the month of November on such subjects as the Professors of the Faculty of Theology consider proper. Vacant.

XIV. Founded by the late Robert Hunter, Dalhousie, Chesters; the Principal and Professors being Patrons. These Bursaries are for the benefit of Students of the Church of Scotland, and are awarded at close of first Session in Divinity, and are tenable for two years. Bursars must attend two Sessions in Chemistry

and Geology, taking at least one of these Classes each Session. Students of the name of Hunter and Hamilton from the parishes of Temple or Cockpen have a preference, but preferential Candidates must attain to a fixed percentage. Bursars must produce certificates of diligence in the Classes of Chemistry and Geology. See excerpt from Deed of Foundation, page 437 of CALENDAR for 1885-86. Vacant.

XV. These Bursaries are open to Students who are entering on their first Session in Divinity, and are tenable for three years. For further details and subjects of examination (which differ somewhat from the University Examination for first year's Bursaries), apply to the Rev. Dr Langwill, Currie, or to the Rev. John Patrick, Greenside, Edinburgh. *Bursars*—1895, *A. C. Buchanan; A. W. Mitchell.* 1896, *Gavin Millar; J. L. Buchanan.*

XVI. Founded by the late Thomas Lockerby, Esq., London. The Bursary is tenable for three years, and is open to "Students who desire to become ministers of the Church of Scotland only." *See* Excerpt from Disposition, page 545 of CALENDAR for 1890-91. *Bursar*—1895, *D. Denholm Fraser, M.A.*

XVII. *Sharp Bursary.*—This Bursary is of the annual value of £18, tenable for four years. The Bursar must be a Student of Divinity of the Church of Scotland, and may prosecute his studies at any one of the Scottish Universities. Preference to any student being a native of or subject to the jurisdiction of the Presbytery of Perth. Apply to the Patrons.

C.—PRESENTATION BURSARIES, open only to Graduates or Students who have passed the necessary Examinations for the Degree of M.A., but have deferred their Graduation with a view to Honours.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1695	Robert Bayne of Pitcairley.	£25 0 0	1	3	£25 0 0	Society of Sons of the Clergy.
II.	1695	James Nairne.	16 13 4	1	3	16 13 4	Prof. of Divinity.

I. This formerly belonged to Ferguson of Raith, and was sold by him to the late Principal Lee; and by Principal Lee's representatives to Professor Crawford; and by Professor Crawford's representatives to the Society for the Sons of the Clergy. By Ordinance, No. 71, of the Universities' Commissioners, and subsequent Order in Council, the following are the regulations as to this Bursary:—Each Bursar shall hold the Bursary for three years, subject to the condition that he shall, during that period, give regular attendance as a Student in Theology in the University of Edinburgh. No person shall hold the Bursary along with any other Bursary, or with any Scholarship in the University. *Bursar—John Wallace, M.A.*

II. This Bursary is tenable for three years, or for such period as the Bursar shall give regular attendance as a Student of Theology in the University of Edinburgh. *See* Ordinance, No. 67, of the Universities' Commissioners, and subsequent Order in Council. *Bursar*—1896, *J. C. Mack, M.A.*

D.—BURSARIES gained in Faculty of Arts, the holders of which are at liberty to study in the Faculty of Divinity.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1809	Dr Donald Grant, London.	£[illegible] 0 0 About	2	4	£[illegible] 0 0 About	Dr Grant's Trustees.
II.	1846	John Jamieson, Edinburgh.	26 0 0 About	1	4	26 0 0 About	Principal and two Professors.
III.	1871	The Sibbald Trustees.	150 0 0	5	3	30 0 0	The Trustees of Dr J. R. Sibbald.
IV.	1889	Daniel Maclaurin, London.	62 10 0	1	4	62 10 0	Town Council.

I. *See* under Faculty of Arts.
II. *See* under Faculty of Arts.
III. *See* under Bursaries in Arts.
IV. *See* under Faculty of Arts.

II.—PRIZES.

I.—BARTY MEMORIAL PRIZE.

The Barty Memorial Prize of £20 for scholarship in Hebrew and Hellenistic Greek is open to entrants to the Divinity Halls of the four Scottish Universities.

II.—HEPBURN PRIZE.

The Hepburn Prize of £25 (which may be divided), open to all Students in actual attendance at the Divinity Hall, may be awarded annually for an essay on a prescribed subject.

III.-XII. THE GUNNING VICTORIA JUBILEE PRIZES.

With a view to promote the study of Natural Science among candidates for the ministry, and to bring out among ministers the fruits of study in Science, Philosophy, Language, Antiquity, and Sociology, Dr R. H. Gunning, of Edinburgh and Rio de Janeiro, has founded ten prizes in the Faculty of Divinity of the University of Edinburgh, to be known as "The Gunning Victoria Jubilee Prizes."

These prizes are ten in number, and comprise a series of five prizes of £50, £40, £30, £20, and £10, for excellence in Theological subjects, and a series of five prizes of similar values for excellence in Natural Science subjects. In their order the prizes in each series correspond in value. A minimum standard of proficiency will be required in each series. The successful competitors may each take both the prize in the Theological, and the prize in the Natural Science series to which their marks may respectively entitle them.

The prizes are competed for triennally at the close of the Divinity Session, and are open to all Students of the Church of Scotland, or other Scottish Churches holding the Confession of Faith, who are gradu-

ates of this University, or have attended two classes in the Faculty of Divinity in this University, and who have completed their Theological curriculum within two years of the close of the session when the competition takes place.

The examination in the Natural Science series will be on Natural History, Botany, and Geology, and of the same standard as the First B.Sc. Examination in Pure Science. The examination in the Theological series will be in Theology proper, the Language and Literature of the Old Testament, Ecclesiastical History, and Biblical Criticism.

The Examiners are the Professors of the subjects of examination in the University of Edinburgh; with the addition of a member of the Senatus of the New College, to be appointed by the Faculty of Divinity. See Revised Scheme, p. 519 of CALENDAR 1889-90.

The next examination under this scheme will be held at the close of Session 1898-99.

1896. *Theological Series*—1st Prize—Thomas Pullar, B.D.
2nd ,, William Smith, B.D.
3rd ,, John Henderson, B.D.
4th ,, George Drummond, B.D.
5th Prize not awarded.

Natural Science Series—1st Prize—Thomas Pullar, B.D.
2nd Prize not awarded.
3rd ,, William Smith, B.D.
4th ,, George Drummond, B.D.
5th ,, John Henderson, B.D.

III.—SCHOLARSHIPS.[1]

I.—PITT CLUB DIVINITY SCHOLARSHIP.

This Scholarship was instituted in 1862 by the Pitt Club, is of the annual value of £107, 11s. 2d. (under deduction of Examiners' fees), and is tenable for three years. By Ordinance No. 77, of the Universities' Commissioners, this Scholarship is open to competition to all Masters of Arts of any of the Universities of Scotland who have given regular attendance in the Faculty of Divinity in the University of Edinburgh for three complete Sessions, and who are in the course of

[1] The names of Scholars are retained in the Calendar for five years.

It has been agreed by the Senatus and the Faculty of Divinity, in regard to the Fellowships and Scholarships of the funds of which they are severally the administrators, that

1. The *Pitt Theological Scholarship* shall be competed for when it falls vacant.
2. The *Aitken Theological Scholarship* shall be reserved from competition when it falls vacant in the same year with the Pitt.
3. The *Glover Divinity Scholarship* shall (according to its conditions) not be open to competition when the Pitt or Maxton may be open, and shall be similarly reserved when the Aitken is open.
4. That meanwhile the *Maxton* be competed for when it is vacant.

studying, with the view of becoming Clergymen of the Church of Scotland. No person is admissible who has been entered as a Student of Divinity more than six years prior to the time of the competition.

Candidates are examined on (1) The Evidences of Revealed Religion; (2) Systematic Theology; (3) Hebrew; (4) Church History; (5) Biblical Criticism. It cannot be held with any other Scholarship, Fellowship, or Bursary of any Scottish University, or along with any parochial or pastoral charge, whether as minister or assistant.

1896. *T. W. Wilson, M.A., B.D.*

II.—MAXTON DIVINITY SCHOLARSHIP.

This Scholarship was founded by the Trustees of the late John Maxton, Esq., in 1867, is of the annual value of £42, 8s. (under deduction of Examiners' fees), and is tenable for three years. It is open only to Students who are members of the Established Church of Scotland, and who have completed the course of study in the Faculty of Divinity in the University of Edinburgh. *See* Deed of Foundation, at p. 234 of CALENDAR for 1867-68.

1896. *W. R. Henderson, M.A., B.D.*

III.—THE GLOVER DIVINITY SCHOLARSHIP.

This Scholarship was founded in 1875 by Subscribers to a Fund for commemorating the memory of the Rev. W. Glover, D.D., and by the University Endowment Association. It is of the annual value of about £36, 10s. (under deduction of Examiners' fees), tenable for three years, and open to all Masters of Arts of any of the Universities of Scotland who have finished their study of Theology, before entering the Church of Scotland, within six years, and who have attended the last Session of their course at least in the University of Edinburgh. It cannot be held with any other Divinity Scholarship or Bursary in any Scottish University, and it is not offered for competition in any year where there is a vacancy in the Pitt Divinity Scholarship or the Maxton Divinity Scholarship. *See* Deed of Foundation, at p. 343 of CALENDAR for 1875-76.

1894. *Robert Venters, M.A., B.D.*

IV.—THE AITKEN THEOLOGICAL SCHOLARSHIP.

This Scholarship, founded in 1875 by bequest of the Rev. David Aitken, D.D., formerly minister of Minto, is of the annual value of £100, 2s. 6d. (under deduction of Examiners' fees). Its purpose is to make provision for the study of Church History and Biblical Criticism at one or more University Seats in Germany, or elsewhere on the Continent of Europe, in the case of meritorious students at Edinburgh University. It is to be awarded, after competitive examination (on due proficiency being shewn), to a Student in Divinity of the University of

Edinburgh, who is a Graduate in Arts of that University of not more than four years' standing. It is tenable for two years ; but the Senatus may extend the term for another year if it appear to them desirable. The time of the competition to be fixed and publicly intimated by the Senatus at least three months before ; and the Senatus are also at liberty to prescribe whether one Semester or two Semesters in the foreign University shall be attended in each year. It is not offered for competition in the same year as the Pitt Divinity Scholarship or the Glover Divinity Scholarship. *See* Deed of Foundation at p. 344 of CALENDAR for 1876-77.

1895. *William Smith, M.A.*

V.—THE DAVID KIDD DIVINITY SCHOLARSHIP.

This Scholarship, which is of the annual value of £36 (under deduction of Examiners' fees), is tenable for three years, and is awarded, after competitive examination in Theology (same as for B.D.), to students of any of the Universities of Scotland who are natives of Scotland, and who have finished their course of study with the view of becoming Ministers of the Church of Scotland. *See* Deed of Foundation in CALENDAR for 1879-80, p. 354.—Vacant.

VI.—VANS DUNLOP SCHOLARSHIP IN HEBREW AND ORIENTAL (SEMITIC) LANGUAGES.

The Competition is open to all who have been Matriculated Students for not less than two years in this University, and not more than six years altogether in this or any other University ; and who have attended at least two courses under the Professor of Hebrew and Oriental Languages. For General Regulations, see under Faculty of Arts.

Candidates will be examined in Hebrew, Syriac, and Arabic.

The Examiners are the Professor of Hebrew and Oriental Languages, and an Examiner appointed by the Senatus. The next Competition will take place at the end of Winter Session 1898-99.

1896. *Andrew Tweedie, M.A.*

VII.—VANS DUNLOP SCHOLARSHIP IN HISTORY.

(*See Scholarships in Faculty of Arts.*)

VIII.—BRUCE OF GRANGEHILL AND FALKLAND SCHOLARSHIPS.

These Scholarships were founded in 1865 by Mrs Tyndall Bruce of Falkland, and are of the annual value of £100. They come into operation only when a vacancy occurs in any one of the three Scholarships of this name in the Faculty of Arts, by the death, resignation, or dismissal, of a Scholar during the period of his tenure of the Scholar-

ship: and are tenable in this Faculty during the remainder of that period. They cannot be held with any other Scholarship or Fellowship of a Scottish University, or with any situation yielding an income of £100 a year. The subjects of Examination are prescribed from time to time by the Faculty.

IX. and X.—THE JEFFREY SCHOLARSHIPS.

These Scholarships, two in number, were founded in 1887 by Miss Jane Jeffrey of Victoria Terrace, Portobello. They are each of the annual value of about £73, 2s. 6d. (under deduction of Examiners' fees), and are tenable for one year. They are awarded annually for special proficiency in the subjects embraced in each of the four departments of Divinity, Hebrew and Semitic Languages, Ecclesiastical History, and Biblical Criticism; and are open to Students of Divinity in connection with the Church of Scotland who shall have given regular attendance for at least one Session on the Divinity Classes in this University, including the class with which the Scholarship competed for is specially connected. They are competed for in the following order:—first year, Divinity, and Hebrew and Oriental Languages; second year, Ecclesiastical History and Biblical Criticism; and so on from year to year. The Examination at the close of Session 1897-98 is in Ecclesiastical History and Biblical Criticism. *See* Deed at page 497 of CALENDAR for 1888-89.

1897. *Divinity*—Alexander M. Gordon, M.A.
Hebrew and Oriental Languages—No award.

XI.—COBB SCHOLARSHIP.

This Scholarship, founded in 1889, is a bequest by the late Miss Matilda Johnston Cobb, Broughty Ferry. It is of the annual value of £32, 10s. (under deduction of Examiners' fees), and is tenable for three years. The subjects of Examination are Hebrew, Greek, Latin, and Mathematics, and the Scholarship is open to competition amongst Students who are entering on the study of Divinity with a view to becoming Ministers of the Church of Scotland.

1896. *Samuel S. Sanderson, M.A.*

XII. GRAY SCHOLARSHIP FOR RESEARCH.[1]

XIII.—THE SWINEY LECTURESHIP ON GEOLOGY.

This Lectureship is open to Graduates in any of the Faculties in the University who have obtained their Degrees after examination. For further particulars, see page 259.

[1] For particulars, see Scholarships in the Faculty of Arts.

SCHOLARSHIPS, BURSARIES, AND UNIVERSITY PRIZES, OPEN FOR COMPETITION IN THE FACULTY OF DIVINITY DURING THE ACADEMIC YEAR COMMENCING 1ST OCTOBER 1897.[1] [2]

I. PRESENTATION BURSARY.

1. *The Blair*, No. V., page 275.

II. COMPETITION BURSARIES.

The Bursary Examination at the beginning of Session 1897-98 will be held on Friday, 5th, and Saturday, 6th November, commencing at 10 A.M. each day, when the following Bursaries will be open for competition :—

1. *The Struthers and Leighton Bursary*, No. II., page 276.
2. *The Ramsay Bursary*, No. III., page 276.
3, 4. *Two Ettles Bursaries*, No. V., page 276.
5. *One Webster Bursary*, one for three years, and one for one year, No. VII., page 277.
6. *One Thomson Bursary*, No. VIII., page 277. *Preferential* candidates are required to intimate their intention to compete to the Agents for the Trustees, Messrs Traquair, Dickson, & Maclaren, W.S., 11 Hill Street, Edinburgh, before 1st November 1897.
7. *The Renton Bursary*, No. XIII., page 277.

The subjects of examination for the above, and for *any other ordinary competition Bursary for first year's Students that may be vacant* at the opening of the Session will be—

(1.) *Latin*—Tacitus' "Germania," and translation from English into Latin prose.
(2.) *Greek*—Sophocles' "Œdipus Tyrannus," and Thucydides, Book I.
(3.) *Mathematics*—"Euclid," Books I.-VI.; Algebra and Elementary Trigonometry.
(4.) *Metaphysics*—Ferrier's "Lectures on Greek Philosophy."
(5.) *Moral Philosophy*—Sidgwick's "History of Ethics."
(6.) *Natural Philosophy*—Blaikie's "Elements of Dynamics," and Balfour Stewart's "Elementary Physics."
(7.) *Hebrew*—Davidson's Grammar and Exercises.
(8.) *Apologetics*—Flint's "Antitheistic Theories."
(9.) *Greek Testament*—Epistles to Romans and Hebrews.

8, 9, 10. *Three Grierson Bursaries*, No. VI., pages 276 and 277.

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1 *Note.*—None of the undernoted Bursaries or Scholarships can be held along with any other Bursary, Fellowship, or Scholarship in any Scottish University. None of the after-mentioned Prizes are subject to this condition.

2 The values of the Scholarships, Bursaries, and Prizes are subject to variation consequent on the rise or fall of the rate of interest, &c.

Preferential candidates to lodge their applications with the *Clerk of Senatus* on or before 1st November 1897.

The subjects of examination for the Grierson Bursaries, if there be competition, will be :—

For the *first* year—

Same as for ordinary Competition Bursaries, except that *Hebrew*, *Apologetics*, and *Greek Testament* are omitted.

For the *second* year—

(1.) *Latin*—Lucretius, Book V., and Livy, Book II.

(2.) *Greek Testament*—Gospel of St Luke and 2 Corinthians.

(3.) *Hebrew*—Grammar ; Joshua, chapters i.-x. inclusive ; Psalms i.-viii. inclusive ; Hebrew Prose Composition.

(4.) *Divinity*—The Incarnation ; Doctrine of Sin.

(5.) *Ecclesiastical History*—To 325 A.D.

(6.) *Biblical Criticism*—Charteris' Croall Lectures on "The Christian Scriptures."

For the *third* year—

(1.) *Apologetic Theology*—Butler's "Analogy."

(2.) *Hebrew*—Judges, Amos, Psalms, Book iii.

(3.) *Ecclesiastical History*—To 325 A.D., and of Scotland, 1500 A.D. to 1600 A.D.

(4.) *Biblical Criticism*—"Canonicity," Introduction, pp. i.-cxvi.

11, 12. *Two Simson Bursaries*, No. XV., page 278.

14. *A Hepburn Prize*, £25 (which may be divided), for the best Essay on "Bishop Butler," to be competed for by Students of second or subsequent year. The Essay not to exceed fifty pages 4to, and to be handed to Rev. Dr Scott, 16 Rothesay Place, Edinburgh, on or before 1st December 1897.

15. *Barty Memorial Prize*, of about £20, for Scholarship in Hebrew and Hellenistic Greek, is open to entrants to the Divinity Halls of the four Scottish Universities. Competitors to apply to J. W. Barty, Esq., Dunblane.

16-18. *Three Hepburn Bursaries*, Nos. X., XI., and XII., page 277. Subjects of Examination: Butler's "Analogy," Part I., and Lightfoot's "Epistle to the Philippians," with the dissertations. For particulars, apply to the Rev. Dr Scott, minister of St George's, Edinburgh, or Rev. Dr Langwill, Clerk of the Presbytery of Edinburgh.

At the close of Session 1897-98, the following will be open for competition :—

1. *The Aitken Scholarship*, No. IV., pages 281-282.

2. *The David Kidd Scholarship*, No. V., page 282.

3, 4. *Two Jeffrey Scholarships*, Nos. IX. and X., page 283.

The Subjects of Examination are :—

Ecclesiastical History—

1 The main facts in the Development of the Constitution, Doctrine, and Worship of the Church from 323 to 451 A.D.

2. The Schism between the Greek and the Roman Church.

3. History of the Church in Scotland from 1560 to 1690.

Biblical Criticism—

1. Robertson's "Early History of Religion."
2. Godet's "Introduction to New Testament." Vol. I. English Translation.
3. "Canonicity." Introductory Chapters, pp. i.-cxvi.

5, 6. *Two King William Bursaries*, one for two years and one for one year, No. IV., page 276. The subjects of examination for this Bursary will be the work of the Session in the Classes of Divinity, Ecclesiastical History, Biblical Criticism, and Junior Hebrew.

7, 8. *Two Robert Hunter Bursaries*, No. XIV., pages 277-278. The subjects of examination are the same as for the King William Bursaries. These Bursaries cannot be held along with any other Bursary, Scholarship, or Fellowship in any Scottish University.

9. *The Mylne Bursary*, No. IX., page 277. Examination as for King William Bursary.

PRIZES.

1. The *Lord Rector's Prize*, No. I., page 182.
2. *The Gray Prizes*, Nos. VII. and VIII., page 182.

William Dickson Travelling Fund, see page 178.
Earl of Moray Fund for Research, page 178.

The attention of all Bursars in the Faculty of Divinity is particularly called to the following Regulation :—

"Each Bursar must present a Certificate, signed by the Dean, attesting his regular attendance on the proper Classes in the Faculty of Divinity on each occasion on which he applies to the Factor for a payment. Payments are made by the Factor for the University, Mr Henry Cook, W.S., 61 North Castle Street, Edinburgh, on and after 15th November for the Martinmas payments, and on and after 18th May for the Whitsunday payments,—between 10 and 3 o'clock.

N.B.—*Bursars, Scholars, and Fellows who desire to resign should at once announce this to the Factor. They must apply to the Factor for the instalments due to them within three months after they have become payable, otherwise they will be regarded as having resigned.*

M. C. TAYLOR, D.D.,
Dean of the Faculty of Divinity.

Faculty of Law.

Dean—Professor Sir LUDOVIC J. GRANT, Bart., B.A.

PROGRAMME OF CLASSES.

WINTER SESSION, 1897-98.

The Classes in the Faculty of Law will open as follows, and will close on Saturday, 19th March 1898.

Classes.	Days of Opening, and Hours of Lectures.	Professors and Lecturers.	Class Fees.[1]
Public Law[2] (*i.e.*, a half-course in Jurisprudence and a half-course in Public International Law)	18 Oct., 2 o'cl.	Prof. Sir Ludovic J. Grant, Bart.	£4 4[3]
Civil Law[2]	15 Oct., 4 ,,	Prof. Mackintosh	5 5[4]
Scots Law	15 Oct., 9 ,,	Prof. Rankine	5 5[4]
Constitutional Law and History[2]	15 Oct., 5 ,,	Prof. Kirkpatrick.	4 4[3]
Conveyancing	15 Oct., 9 ,,	Prof. Wood	4 4
Political Economy & Mercantile Law[2]	15 Oct., 5 ,,	Prof. Nicholson	3 3[3]
Procedure and Evidence[5]	15 Oct., 5.30 ,,	J. J. Cook, LL.B.	2 2

SUMMER SESSION, 1898.

The Classes in the Faculty of Law will open as follows, and will close on Wednesday, 20th July.

Classes.	Days of Opening, and Hours of Lectures.	Professors and Lecturers.	Class Fees.[1]
Civil Law	12 May, 9 o'clock	Prof. Mackintosh.	£5 5[4]
Scots Law	12 May, 9 ,,	Prof. Rankine	5 5[4]
Forensic Medicine	3 May, 10 ,,	Prof. Sir Henry D. Littlejohn.	4 4
International Private Law[5]	12 May, 5 ,,	G. W. Burnet, M.A., B.L.	2 2

[1] Matriculation Fees: Year, £1, 1s.; Summer, 10s. 6d. Second attendances: On £5, 5s. or £4, 4s. Courses, £3, 3s.; on £3, 3s. Courses, £2, 2s. On Half-Courses: First half, no reduction; second half, £1, 1s; on Procedure and Evidence and International Private Law, second attendances, £1, 11s. 6d.; third or subsequent attendances on any Class, £1, 1s.

[2] Qualifying also for the degree of M.A.

[3] For a Half-Course, £2, 2s.

[4] This Fee is paid in Winter, and includes the Winter and Summer Sessions. Fee for Winter Session only, £4, 4s.; for Summer Session only, £2, 2s.

[5] Five shillings University entrance fee for non-matriculated Students.

Courses of Lectures.

1897-98.

I. CIVIL LAW.

PROFESSOR MACKINTOSH.

The full Course extends over a Winter and a Summer Session, covered by one fee of £5, 5s.

The Winter Course is the same as for Graduation in Arts; see Courses in Arts. The Summer Session is devoted to the doctrines of (1) Wills and Succession, (2) Obligations and Contract. The Contract of Sale will be dealt with in detail.

The Lectures are equally adapted for students qualifying for the legal profession in Scotland or England, or for service in India or the Colonies.

Text-Books.—The Institutes of Gaius and Justinian, and the Professor's "Roman Law of Sale."

The "Muirhead Prize" and the "Forensic Prize" are offered annually for competition.

II. SCOTS LAW.

PROFESSOR RANKINE, LL.D.

Students are recommended to make themselves familiar either with Erskine's "Principles" or his "Institutes" (edition by J. Badenach Nicolson, Esq., 1871). The nineteenth edition of the former work will be the text-book of the Class.

1. Sketch of the Literature of the Law of Scotland—the sources of the Law—the interpretation of Statutes.

2. Personal Relations—marriage and the modes of proving it—patrimonial effects of Marriage—rights of husband and wife—dissolution of Marriage—divorce—tutors and curators—minors—insane—parent and child—succession—heritable and moveable—wills—trusts.

3. Wrongs—personal injury—defamation—ownership of heritable property—rights and liabilities incident thereto—ownership of moveables—copyright—patents.

4. Obligations and Contracts—general requisites, constitu-

tion, and construction — partnership — joint-stock companies —factory and agency—sale—letting to hire—leases—carriers —shipping—insurance—bills of exchange—extinction of obligations—diligence—bankruptcy.

5. Parochial Law—burgh and county law—rates and taxes.

6. Criminal Law.

Summer Session.

The Lectures on Criminal Law, and part of the lectures on the above subjects, are delivered during the Summer Session.

III. CONVEYANCING.

PROFESSOR WOOD.

The Course embraces the following subjects :—

BRANCH FIRST—*Deeds in General.*

1. Requisites as to external form, and the solemnities of execution and authentication. 2. Deeds privileged as regards these solemnities. 3. Delivery and acceptance.

BRANCH SECOND—*Deeds relating to Feudal Rights.*

1. The feudal system and its bearing on the existing state of heritable rights in Scotland. 2. The writs constituting a feudal estate. 3. Writs used in the voluntary transmission of lands. 4. Services and Destinations. 5. Settlements and Marriage Contracts, as relating to heritage. 6. Entails.

BRANCH THIRD—*Miscellaneous Rights relating to Heritable Estate.*

1. Servitudes. 2. Leases. 3. Adjudications and Inhibitions. 4. Sequestrations. 5. Trust Deeds for Creditors. 6. Rights in Security.

BRANCH FOURTH—*Miscellaneous Writs, relating mainly to Moveable Rights.*

1. Submissions. 2. Securities over moveables. 3. Cautioner's Writs. 4. Life Insurance Policies Writs. 5. Discharges. 6. Partnership and Company Deeds. 7. Factories. 8. Wills and Marriage Contracts.

IV. PUBLIC LAW.

PROFESSOR SIR LUDOVIC GRANT, BART.

Two Courses will be delivered during the Session 1897-8: (1) Forty Lectures on the Philosophy of Law; and (2) Forty Lectures on Public International Law.

1. The Course on the Philosophy of Law will begin on Friday, 18th October 1897, at two o'clock.

The Lectures will be delivered *four* days a week.

Books of Reference.—Green, Principles of Political Obligation. Ritchie, Natural Rights. Ahrens, Cours du Droit Naturel. Bluntschli, The Theory of the State. Lorimer, Institutes of Law. The Student's Austin. Holland, Jurisprudence. Markby, Elements of Law. Sir Henry Maine's Works. Pollock, History of Political Science, and First Book of Jurisprudence. Seeley, Introduction to Political Science.

2. The Course on Public International Law will begin on 5th January 1897. The Class will meet *four* days a week.

(*a*) An Historical Retrospect. (*b*) Some Account of the Science and Literature of Public International Law.

Books of Reference.—Ward's Enquiry into the Foundation and History of the Law of Nations. Wheaton's History of the Laws of Nations; Introduction. Nys's Les Origines du Droit International. Westlake's International Law. Phillimore's International Law, Vol. I. Bryce, Holy Roman Empire. Pardessus, Us et Coutumes de la Mer.

(*c*) An examination of the sources and a critical exposition of the leading doctrines of Public International Law.

Books of Reference.—Hall, International Law. Wheaton, International Law. Lawrence, Principles of International Law. Woolsey, Introduction to the Study of International Law. Hertslet, Map of Europe by Treaty. Letters by Historicus. Pitt Cobbett, Select Cases.

V. CONSTITUTIONAL LAW AND HISTORY.

PROFESSOR KIRKPATRICK, LL.D.

These Lectures, qualifying for Graduation in Law and in Arts, are given in winter on Tuesdays, Wednesdays, Thursdays,

and Fridays, at 5. Eight examinations and two essays during the Session. Honours for examinations and essays combined.

Subjects:—(1st Half) Constitutional History and Law of England; (2nd Half) Constitutions of America, France, Germany, Switzerland, &c.

Text-Books.—(1) For elementary purposes, Taswell Langmead's Constitutional History, and S. R. Gardiner's Student's History of England. For further study, Stubbs's Select Charters and English Constitutional History; Hallam's Middle Ages, Chap. viii.; Hallam's Constitutional History of England; Sir T. Erskine May's Constitutional History; English Constitution by W. Bagehot; Guizot's Lectures on Representative Government; R. Gneist's Self-Government in England, 3d edition, Berlin, 1871; Gneist's Geschichte und heutige Gestalt der Aemter, etc., in England, 2d edition, Berlin, 1866; Gneist's English Constitution, translated by P. A. Ashworth, London, 1886; and Blackstone's Commentaries, Book IV., of Public Rights.

(2) For elementary purposes, Thwaites' The Colonies and Hart's Formation of the Union (Epochs of American History), Johnston's History of the United States, Macy's Our Government. For further study, Bryce's American Commonwealth, Bancroft's History of the Constitution of the U.S.A., Winsor's History of the U.S.A., Adams and Cunningham's Swiss Confederation, Dareste's or Demombynes' Constitutions, Boutmy's Studies in Constitutional Law, Borgeaud's Adoption and Amendment of Constitutions, &c.

The History Reading-Room (adjoining the Lecture Room) may be consulted by all members of the Class on Mondays and Fridays, from 11 to 1, and on Wednesdays, 12 to 2.

Auxiliary Course of Twenty Lectures on "The English Kingship," by Mr D. P. Heatley, the Professor's Assistant, on Wednesdays at 11 (free to all members of the Class).

VI. MEDICAL JURISPRUDENCE.

PROFESSOR SIR HENRY D. LITTLEJOHN, M.D., LL.D.

For Synopsis of this Course, *see* under Faculty of Medicine.

VII. COMMERCIAL AND POLITICAL ECONOMY AND MERCANTILE LAW.

For Synopsis of this Course, *see* under Faculty of Arts.

VIII. INTERNATIONAL PRIVATE LAW.

Lecturer—G. WARDLAW BURNET, M.A., B.L.

A Course of Forty Lectures on this subject will be given during the Summer Session on Tuesday, Wednesday, Thursday, and Friday in each week, at 5 P.M. Under Ordinances 39 and 40, attendance on these Lectures qualifies as a half-course for Graduation in Law. The subject is also included among those in which Intrants to the Faculty of Advocates may be examined, and the Lectures are therefore adapted for students qualifying for the Scottish Bar.

The Lectures will deal with (*a*) The purpose and scope of the study of International Private Law; (*b*) Its History and Literature; (*c*) Its general principles and their application in regard to—i. *Forum*, or Competency, including Jurisdiction, the Recognition of Foreign Judgments, and Procedure generally; and ii. *Lex*, or Choice of Law, in questions of (1) the Personal Law including *status*, and the family relations; (2) the Law of Property, moveable and immoveable; (3) the Law of Obligations, including contract and delict; (4) Succession; and (5) Bankruptcy.

Examinations will be held on the subjects of the Lectures.

Books of Reference.—Rattigan's Private International Law: Guthrie's Savigny; Westlake's Private International Law: Gillespie's Bar: Foote on Private International Jurisprudence: and Dicey's Digest of the Law of England with reference to the Conflict of Laws.

PROCEDURE AND EVIDENCE.

Lecturer—J. J. COOK, LL.B.

This Course of Forty Lectures will describe the various Courts of Scotland, with the nature of their jurisdiction, the actions competent in each, and the details of the procedure,

followed in them. It will also include the principles of the Law of Evidence. The Lectures are delivered on Tuesday and Thursday of each week during the Winter Session.

Text-Books.—Mackay's "Manual" and "Practice of the Court of Session"; Coldstream's "Procedure in the Court of Session"; Dove Wilson's "Sheriff-Court Practice in Civil Causes"; Macdonald's "Criminal Law"; Macdonald's "Criminal Procedure (Scotland) Act, 1887"; Dickson on "Evidence"; Kirkpatrick on "Evidence."

Candidates for Graduation who pass in Procedure and Evidence as an extra subject may have this fact recorded on their Diplomas.

Regulations for Graduation in Law.

For Regulations for those who began the Study of Law, with a view to Graduation, before 1st October 1895, *see* CALENDAR *for* 1896-97 *or previous* CALENDARS.

Two Degrees in Law are conferred on Examination, viz., Bachelor of Law (B.L.) and Bachelor of Laws (LL.B.). Either Degree admits to the profession of Law Agent, provided the Candidate has included Scots Law and Conveyancing among his Graduation subjects, and has passed an Examination in the Practice of the Courts under the Law Agents Act.

The Degree of LL.B. (if the Candidate has been examined in Civil Law, Philosophy of Law, International Law—Public or Private, Constitutional Law and History, Medical Jurisprudence, Scots Law—Civil and Criminal, including Procedure, and Conveyancing admits to the profession of Advocate.

Two Law Graduation Examinations are held annually, the first beginning on the last Monday in October, and the second on the third Monday in March.

I. REGULATIONS FOR BACHELOR OF LAWS (LL.B.).

I. No one is admitted to examination as a Candidate for the Degree of Bachelor of Laws (LL.B.) unless he be a Graduate in Arts of one of the Universities of the United Kingdom; or of any Foreign or Colonial University specially recognised for the purpose by the University Court.[1]

[1] The following Degrees have been recognised in terms of this Section: B.A. of New Zealand University; B.A. of Cape of Good Hope University; B.A. of Dalhousie University, Halifax, Nova Scotia; Queen's College, Kingston, Canada; B.A. of Michigan University; B.A. of the Universities of Calcutta and Madras.

II. The course of study in Law for the Degree of Bachelor of Laws includes the following subjects :—[1]

(1) Jurisprudence, General or Comparative, during a course of not less than forty lectures.

(2) The Law of Nations, or Public International Law, during a course of not less than forty lectures.

(3) Civil Law, during a course of not less than eighty lectures.

(4) Law of Scotland, or Law of England, during a course of not less than eighty lectures.

(5) Constitutional Law and History, during a course of not less than eighty lectures.

(6) Conveyancing, during a course of not less than eighty lectures ; or Political Economy, or Mercantile Law, during a course of not less than eighty lectures.

(7) Any two of the following subjects, namely :—International Private Law, Political Economy, Administrative Law, and Forensic Medicine ; in each case during a course of not less than forty lectures.

III. (1) The course of study necessary for the Degree of Bachelor of Laws extends over three academical years, one of which at least must be spent in the University in which the Candidate intends to graduate, the other two may be spent in any other University or School of Law, specially recognised by the University Court.[2]

(2) No Candidate for a Degree is deemed to have attended a class as part of the course of study necessary for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

IV. Candidates must undergo examination in the subjects prescribed in Section II. hereof ; and they must pass at one examination in at least two of these subjects. Before presenting themselves in any subject the Candidates must have attended the requisite course of instruction in such subject. Candidates who have passed an examination for another degree in any of the said prescribed subjects in the same University may be exempted from examination in such subject or subjects, provided that the examiners are satisfied that the previous examination in such subject or subjects has been passed on a sufficiently high standard.

V. Every Candidate for the Degree of Bachelor of Laws is examined both orally and in writing on each of the subjects in the course of study above prescribed, in which he presents himself for examination.

VI. (1) Distinction may be awarded to Candidates who have displayed exceptional merit in their examinations.

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[1] For names of authorised extra-academical lecturers, *see* under Faculty of Medicine.

[2] Recognised in terms of this section : the Universities of Oxford, Cambridge, and Dublin, the Inner and Middle Temples, Lincoln's Inn, and Gray's Inn, and the Madras Law School.

(2) For the Degree of Bachelor of Laws a diploma is given, setting forth the subjects in which the Candidate has passed, and the distinction (if any) he has attained.

Candidates for Examination or Graduation must matriculate for the year.

II. BACHELOR OF LAW (B.L.).

I. No one is admitted to examination as a Candidate for the Degree of Bachelor of Law (B.L.) unless he be a Graduate in Arts of one of the Universities of the United Kingdom, or of any Foreign or Colonial University specially recognised for the purpose by the University Court: or until he has passed—*A*. The Preliminary Examination in the Faculty of Arts, or its equivalent, and *B*. An examination in one of the Scottish Universities, to be conducted by the Examiners in Arts, in the following subjects, on the Standard of Examination for the Ordinary Degree of Master of Arts:—

(1) Logic and Psychology; or, in the option of the Candidate, Moral Philosophy. (2) Latin. (3) One additional Arts subject, not being one of those which belong also to the Faculty of Law.

And he must have studied at least one of these subjects in a full course in a Scottish University, or an equivalent course in another University approved by the University Court.

II. The course of study in Law necessary for the Degree of Bachelor of Law must include the following subjects:—

1. Civil Law, during a course of not less than eighty lectures; or a half-course in Civil Law where in any University a full course is not available; provided that in the latter case, Candidates who are not already graduates in Arts are required to take in addition a course in such subject in Arts as may be sanctioned by the Senatus Academicus, or a half-course in one or other of the following branches of Law:—(*a*) Jurisprudence, General or Comparative. (*b*) The Law of Nations, or Public International Law. (*c*) Constitutional Law and History. (*d*) International Private Law. (*e*) Mercantile Law. (*f*) Administrative Law.

2. Law of Scotland, during a course of not less than eighty lectures.

3. Conveyancing, during a course of not less than eighty lectures.

4. Forensic Medicine, during a course of not less than forty meetings of the class; or, in the option of the Candidate, a half-course in one of the branches of Law specified in sub-section 1 of this section, if not already taken.

III. (1) The course of study in Law necessary for the Degree of Bachelor of Law extends over two Academical years.

(2) No Candidate for a Degree is deemed to have attended a class as part of the course of study necessary for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

(3) The Candidate may prosecute his studies during the prescribed two years in one Scottish University, or in different Scottish Univer-

sities, or in a Scottish University and a University or School of Law specially recognised by the University Court ; but one at least of these years must be spent, and all the examinations in the subjects mentioned in the preceding section must be passed, at the University in which he intends to graduate.

IV. The Candidate for the Degree of Bachelor of Law must undergo examination and pass in the four or more subjects selected by him ; but he may present himself for examination in one subject or group of subjects at a time, provided that he has completed the course of study for such subject or group of subjects, and provided also that in that case a higher standard of proficiency shall be exacted.

V. Every Candidate for the Degree of Bachelor of Law is examined, both orally and in writing, on each of the subjects in the course of study above prescribed, in which he presents himself for examination.

VI. (1) Distinction may be awarded to Candidates who have displayed exceptional merit in their examinations.

(2) For the Degree of Bachelor of Law a diploma is given, setting forth the subjects in which the Candidate has passed, and the distinction (if any) he has attained.

Candidates for Examination or Graduation must matriculate for the year.

EXAMINATIONS.

I. Preliminary Examinations for B.L.

A.—For outlines of subjects on the M.A. Preliminary Standard, see page 99, and for Time Table of Examinations, see pages 120-122.

B.—For outlines of subjects on Standard of Ordinary Degree of M.A., see page 127, and for Time Table of Examinations, see page 124.

II. Law Examinations (for Degrees of LL.B. and B.L.).

Subjects for October 1897 (*and till further notice*).[1]

In General Jurisprudence the subjects will be *The Philosophy of Law* and *Civil Society*, and *Analytical* and *Historical Jurisprudence*. For books recommended see Synopsis of the Professor's Lectures.

In Public International Law the examination will be in the doctrines of the Law and the historical and scientific questions connected therewith. For books see Synopsis of the Professor's Lectures.

In Civil Law the examination will be on the History of the Law, and on its Principles as explained in the Institutes of Gaius and Justinian. Candidates for LL.B. will also be examined on Books xviii., tit. i. (*De contrahenda emptione*) and xix., tit. i. (*de actionibus empti venditi*) of the Digest. For books recommended see Synopsis of the Professor's Lectures. The paper will contain passages for translation into English from the Latin text of the above-mentioned books.

[1] Examination papers will be set in the other subjects prescribed by the Regulations if required.

In CONSTITUTIONAL LAW AND HISTORY the subjects will be—(*a*) Constitutional History and Law of England, down to the first Reform Act (Text-books, the works of Stubbs, Hallam, and May); (*b*) the Constitutions of the U.S. of America, of France, Germany, and Switzerland (Text-books, Bancroft, Bryce, Adam and Cunningham, Dareste's or Demombyne's Constitutions). See also Synopsis of Lectures.

In the LAW OF SCOTLAND the subject will be the Municipal Law, Civil and Criminal. The works of Mr Erskine, Mr G. J. Bell, and Lord Kingsburgh, in the latest editions, are recommended to Candidates.

In CONVEYANCING the subject of examination will be—Heritable Rights.

In FORENSIC MEDICINE the subjects will be—(1) Identity of the Living: (2) Criminal Abortion: (3) Wounds and other External Injuries, including Blood Stains; (4) Poisoning by Arsenic; (5) Inheritance and Legitimacy.

In POLITICAL ECONOMY the examination will be on the subjects treated of in Mr J. S. Mill's "Principles of Political Economy." Candidates must also show some knowledge of the works of the recent writers mentioned in the Synopsis of the Professor's Lectures.

In INTERNATIONAL PRIVATE LAW Candidates will be examined on the subjects dealt with in the Lectures (see Synopsis), and in Guthrie's Savigny.

PROCEDURE AND EVIDENCE.—Candidates for a Law Degree may be examined in this subject also, and have the fact recorded on their diplomas. Candidates will be examined on the subjects dealt with in the Lectures. Text-books, see Synopsis of Lectures.

FEES.

1. PRELIMINARY EXAMINATION FOR B.L.

For each appearance, ... £0 10 6

2. For each subject on M.A. Standard the same fee as is payable for that subject for M.A., viz., 15s., or £1, 1s. as the case may be.

3. LAW EXAMINATIONS FOR LL.B. AND B.L.

The fee payable for LL.B. is £6 6 0

or

If the Examination be taken at two or more periods—

For the First, ... £3 3 0

For the Second, ... 3 3 0

The fee payable for B.L. is £5 5 0

or

If the Examination be taken at two or more periods—

For the First, ... £3 3 0

For the Second, ... 2 2 0

Candidates who fail to pass in any of the LL.B. or B.L. subjects pay a fee of 10s. 6d. for each subject in which they are re-admitted to Examination.

Fee for registration as a member of the General Council (if not already registered) £1.

DATES OF ENTERING AND OF EXAMINATIONS, AND FOR PAYMENT OF FEES.[1]

Candidates may pay the fees personally or transmit them to T. GILBERT, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, and not by cheques on private accounts.

I. PRELIMINARY EXAMINATION FOR B.L.

Candidates for Examination may obtain Schedules at the Matriculation Office, University (Old) Buildings, which must be completed and lodged, with the relative fees, not later than 17th September 1897 and 1st March 1898, for the autumn and spring Examinations respectively.

A.—ON THE M.A. PRELIMINARY EXAMINATION STANDARD.

1897.

Sept.	17, Fri.	Names, &c., to be given in and fees paid, *on or before* this date.
,,	24, ,,	Italian—2-5.
,,	25, Sat.	English—9-11, 12-2; Lower Greek, 3-6.
,	27, Mon.	Lower Latin—9-12; Lower Mathematics, 2-5.
,,	28, Tu.	Higher Latin—9-11, 12-2; French, 1st Paper, 3-4.30.
,,	29, Wed.	Higher Greek—9-11, 12-2; German, 1st Paper, 3-4.30.
,,	30, Th.	Higher Mathematics—9-11, 12-2; French, 2nd Paper, 3-5.
October	1, Fri.	German—2nd Paper, 9-11; Dynamics, 1-4.

1898.

March	1, Tu.	Names, &c., to be given in and fees paid *on or before* this date.
,,	25, Fri.	Italian—2-5.
,,	26, Sat.	English—9-11, 12-2; Lower Greek, 3-6.
,,	28, Mon.	Lower Latin—9-12; Lower Mathematics, 2-5.
,,	29, Tu.	Higher Latin—9-11, 12-2; French, 1st Paper, 3-4.30.
,,	30, Wed.	Higher Greek—9-11, 12-2; German, 1st Paper, 3-4.30.
,,	31, Th.	Higher Mathematics—9-11, 12-2; French, 2nd Paper, 3-5.
April	1, Fri.	German—2nd Paper, 9-11; Dynamics, 1-4.

B.—FOR DATES OF EXAMINATIONS AND OUTLINE OF SUBJECTS ON STANDARD OF ORDINARY DEGREE OF M.A., *see Regulations for Degrees in Arts.*

[1] If names are not entered, and fees are not paid, on or before the stated dates, a late-entry fee of ten shillings must be paid before the Candidate can be admitted to examination.

II. Law Examinations for LL.B. and B.L.[1]

1897.

October 18, Mon. Names to be given in, certificates shown, and fees paid, *on or before* this date.
,, 25, ,, Scots Law—9-1; Constitutional Law and History, 2-4.
,, 26, Tu. Civil Law—9-1; Constitutional Law and History, 2-4.
,, 27, Wed. Conveyancing — 9-1; Political Economy, 9-11; 11.30-1.30; Medical Jurisprudence, 2-4.
,, 28, Th. Public Law—9-11, 11.30-1.30.
,, 29, Fri. International Private Law, 9-11; Procedure and Evidence, 12-2.
Nov. 1, Mon. Oral Examinations begin.
March 7, Mon. Names to be given in, certificates shown, and fees paid, *on or before* this date.
,, 14, ,, Scots Law—9-1; Constitutional Law and History, 2-4.
,, 15, Tu. Civil Law—9-1; Constitutional Law and History, 2-4.
,, 16, Wed. Conveyancing, 9-1; Political Economy, 9-11; 11.30-1.30; Medical Jurisprudence, 2-4.

1898.

March 17, Th. Public Law, 9-11, 11.30-1.30.
,, 18, Fri. International Private Law, 9-11; Procedure and Evidence, 12-2.
,, 21, Mon. Oral Examinations begin.

Graduation Ceremonials.

April 9, Sat. } Names to be entered at least ten days previously.
August 1, Mon. }

Graduates in Law.[2]

DEGREE OF LL.B., 1889-1897.

1889.

David Anderson, M.A.
Claud Patrick Boswell, M.A.
Archibald Brown Campbell, M.A.
*Andrew Henderson Briggs Constable, M.A.
*Alistair Davidson, M.A.
*Matthew Robin Greenlees, M.A.
James Arthur Hope, M.A.
*William Hunter, M.A.
*Robert Bird Kerr, M.A.
Francis Kinloch, B.A.
*George Fleming Mathers, M.A.
*John Hepburn Millar, M.A.
*Charles David Murray, M.A.
*Coventry Dick Peddie, M.A.

[1] See footnote, page 298.

[2] The names of all the Graduates in Law from the institution of the Degrees to 1888 will be found in the List of Graduates of the University, published in 1889, pp. 125-127. See also previous Calendars.

* Passed with distinction. "Distinction" was instituted in October 1885.

John Ritchie, M.A.
*Hamish Hay Stuart, M.A.
Arthur Moodie Thomas, M.A.
*Alexander Thomson, M.A.

1890.

*Duncan Mearns Abel, M.A.
*James Roberton Christie, M.A., LL.B. (Glasg.).
*William Scott Currie, M.A.
Edmund John Gunn, M.A.
Neil James Kennedy, B.A.
William James Kippen, B.A.
Lawrence M'Laren, M.A.
John Liddell Officer, M.A.
Alexander David Russell, M.A.
*William Thomson, M.A.

1891.

Andrew Brown, M.A.
Charles Walker Bruce, M.A.
Robt. Jeffrey Cunningham, M.A.
James Wright Forbes, M.A.
Henry William Gibson, M.A.
Alexander Gray, M.A.
William Gray, M.A.
*James Mercer Irvine, M.A., B.Sc.
*Erskine Dawson Jamieson, M.A.
*Thomas Johnston, M.A.
Robt. Carmichael Malcolm, M.A.
*Thomas Brash Morison, M.A.
C. Morrison, M.A.
*Andrew Fleming Smith, M.A.
James Robert Earl Monteith Smith, M.A.
Michael Smith, M.A.
*Robert Macaulay Smith, M.A.
Frederick Mills Spankie, M.A.
Alex. Arthur Granger-Stewart, M.A.
*Robert Moir Williamson, M.A.
John Buchanan Young, M.A.

1892.

James Barty, M.A.
William Brown, M.A.
*John Sproat Taylor Cameron, M.A.
*William Chree, M.A.
John Marr Davidson, M.A.
*James Grant, M.A.
Augustus Wallace M'Gregor, M.A.
Thomas John Millar, M.A.
Alexander John Raeburn, M.A

1893.

George Haskell Boyd, M.A.
Thomas Sanderson Hepburn Burns, M.A.
*William Findlay, M.A.
Louis Carr Hallard, M.A.
*William Ingram, M.A., D.Sc.
*Robert Munro, M.A.
William Dormond Munro, M.A.
*Alexander Blairford Smith, M.A.
Thomas Callander Wade, M.A.
John Peregrine Robertson White, M.A.

1894.

*Alexander Brown, M.A.
Robert Smith Craig, M.A.
William Graham, M.A.
Ian MacIntyre, M.A.
*James M'Robie, M.A.
David Maxwell, M.A.
George Morton, M.A.
John Purves Smith, M.A.
Frederick James Thomson, M.A.
*John Aitken Welsh, M.A.

1895.

*Francis Molison Anderson, M.A.
*James Ballantyne, M.A.
John Erskine Dods, M.A.
Alexander James Louttit Laing, M.A.
*Charles Lippe, M.A.
Alexander M'Callum, M.A.
William Dunbar MacDougall, M.A.
William George Manson, M.A.
*John Arthur Thomas Robertson, M.A.
Walter James Robertson, M.A.
James Rose, M.A.

* Passed with Distinction. See note 2, page 299.

*James Miller Thomson, M.A.
David Milne Watson, M.A.

1896.

*James Adamson, M.A.
Arthur James Alison, M.A.
William Blair, M.A.
James Dunlop, M.A.
*Hugh Archibald Hamilton, M.A.
Robert Macfie, M.A.
Robert Dundonald Melville, M.A.
James Duncan Millar, M.A.
William Mitchell, M.A.

10th April 1897.

*Alexander Boyd Barty, M.A.
*John Cowan, M.A.
*Thomas Crow Darling, M.A.
Maxwell Fleming, M.A.
Robert Candlish Henderson, M.A.
*David Nasmyth Clarke Hogg, M.A.
Robert Macgregor Mitchell, M.A.
John Alexander Robson, M.A.
George Crurie Steuart, M.A.

DEGREE OF B.L.

1889.

*Robert Liddell Cockburn.
John Glover.
William Stowell Haldane.
John Lumsden Macpherson, M.A.
John James Waugh.

1890.

Duncan Cameron.
Duncan Archibald Maccoll.
Robert Watson.

1891.

John Scrymgeour Hepburn.
John Nisbet.
William Alexander Stewart.
Thomas Trotter.

1893.

John Romanes.
Thomas Edward Taylor, M.A.

1894.

*Alexander Douglas Donald.
Buckham William Liddell.

1895.

Geo. Ernest Rawson Coldstream.
William Alexander Cullen.

1896.

*John Aitken Christie.
James Dan Easson.
*Alexander Speeden Riach.
David Ritchie.
*William Gowan Dobie Simpson.

10th April 1897.

Alexander Ernest Philip Gardner.

DEGREE OF DOCTOR OF LAWS (LL.D.).[1]

The Degree of Doctor of Laws is conferred *honoris causâ tantum*. It was first granted in 1695. Previously to 1751 it had been conferred on seven persons only. Since then more than 400 names, including some of the most distinguished in Europe, have been added to the list. The degree is not conferred in absence except in very special cases.

The following is a list of those upon whom the Degree of Doctor of Laws has been conferred 1889-1897 : —[2]

* Passed with Distinction. See note 2, page 299.

[1] Those to whom the Degree has been offered, if unable to be present at the Graduation Ceremonial immediately ensuing, may present themselves at any subsequent Ceremonial, on giving at least a week's notice.

[2] The names of those who received the Degree prior to 1859 will be found in the "Catalogue of the Graduates in the Faculties of Arts, Divinity, and Law of the University of Edinburgh since its foundation," published in 1858, and of those who received the Degree from 1859 to 1888, both years included, in the List of Graduates published in 1889, and in previous Calendars.

1889.

[1] Sir Syed Ahmed Khan, Bahadûr, K.C.S.I.
J. E. T. Aitchison, C.I.E., M.D., F.R.S., &c.
[1 2] James D. Dana.
[1] Francis Day, C.I.E., &c.
[1] Hon. David Dudley Field.
[1 2] C. Gegenbaur.
[1 2] E. Haeckel.
[1] Rudolf von Jhering, Dr. Jur.
[1 2] E. E. Kummer.
William Mackintosh, M.A., Q.C.
[1 2] Konrad Maurer.
Maurice Paterson, B.A.
Richard Quain, M.D., F.R.S., &c.
[1] Rudolf von Roth, Ph.D.
[1 2] Barthélemy St. Hilaire.
[1 2] Jules Simon.
Whitley Stokes, C.S.I., C.I.E., D.C.L., &c.
[1 2] Geheimrath Heinrich von Sybel.
James Ward, M.A., D.Sc.
[1] William Dwight Whitney.
[1 2] B. Windscheid.

1890.

Sir Benjamin Baker, C.E.
Pierre Paul Leroy-Beaulieu.
Right Hon. Henry Chaplin, M.P.
Sir Dyce Duckworth, M.D.
Sir John Fowler, Bart., C.E.
[1] James Anthony Froude, M.A., LL.D.
Joseph H. Gilbert, M.A., Ph.D., LL.D., F.R.S.
William W. Goodwin, D.C.L.
James Hardy.
Sir John Kirk, M.D., G.C.M.G.
General Robert Maclagan, R.E.
John Marshall, M.A.
Right Hon. J. P. B. Robertson, M.P.
Frederic Seebohm, F.S.A.
[1] Emeritus-Professor C. Piazzi Smyth, F.R.A.S., &c.
H. M. Stanley.
Spencer Walpole.

1891.

Alexander Asher, Q.C., M.P., &c.
John Beddoe, M.D., F.R.S, &c., &c.
Major C. R. Conder, R.E., D.C.L.
Felix Dahn.
Alexander Campbell Fraser, D.C.L., LL.D.
Cunningham Geikie, D.D.
George Joachim Goschen, M.P.
Sir George Murray Humphry, M.D., F.R.S.
Colonel Sir Colin Campbell Scott Moncrieff, K.C.M.G., C.S.I.
Professor Simon Newcomb.
Sir Herbert Stanley Oakeley, M.A., Mus. Doc., LL.D., D.C.L.
John Johnstone Rogerson, B.A., LL.B.

1892.

Surgeon-General James Macnabb Cuningham, M.D., &c.
[1] Rev. C. V. A. Van Dyck, M.D., D.D.
Robert M. Ferguson, Ph.D., F.R.S.E.
Rt. Hon. Sir Edward Fry.
[1] Theodore Nöeldeke.
Dr Jakob Schipper.
Hon. Sir Charles Tupper, Bart., G.C.M.G., C.B., M.D.
[1] Rev. Thomas Walker, M.A.
Robert Boog Watson, B.A., F.R.S.E.

1893.

Geheimrath Professor Dr Arthur Auwers.

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[1] Conferred *in absentia*.
[2] Tercentenary Graduates unable to be present in 1884.

Sir I. Lowthian Bell, Bart., F.R.S.
John Sutherland Black, M.A.
Sir George Buchanan, M.D., F.R.S.
Rt. Hon. Sir Stuart Knill, Bart.
Henry Duncan Littlejohn, M.D., F.R.C.S. Edin.
Alfred Marshall, M.A.
John Rhys, M.A.
His Excellency General the Right Hon. Lord Roberts, of Candahar, G.C.B., G.C.I.E., V.C., R.A. (B.).
Lieut.-Colonel Justin C. Ross, C.M.G.
Rev. Walter C. Smith, D.D.
Alexander Moody Stuart.
Ramsay Heatley Traquair, M.D., F.R.S.

1894.

John Taylor Brown.
W. H. Gaskell, M.D., F.R.S.
Henry Goudy, M.A., LL.B.
Professor Franz Kielhorn, Ph.D.
Professor Diodato Lioy.
Charles B. Logan, W.S.
David Patrick, M.A., B.D.
Rt. Hon. Sir Charles John Pearson, M.A., Q.C., M.P.
James Alexander Russell, M.A., B.Sc., M.B., C.M.
George Wilson, M.A., M.D.

1895.

Rev. William Cunningham, M.A., D.Sc., D.D.
Hon. Lord M. T. Stormonth Darling, M.A.
Thos. Edmonson Charles, M.D.
Joseph Remi-Leopold Delbœuf, Ph.D., D.Litt., D.Sc.
S. Weir Mitchell, M.D.
Professor W. M. Flinders Petrie, M.A., D.C.L.

1896.

P. Hume Brown, M.A.
Giosuè Carducci.
Emeritus-Prof. David Masson, LL.D.
Sir J. Russell Reynolds, Bart., M.D., &c.
Douglas Argyll Robertson, M.D., F.R.C.S. (Edin.), &c.
John Alexander Stewart, M.A.
David Duncan, M.A., D.Sc.

1st August 1896.

Sir Dietrich Brandis, Ph.D., K.C.I.E., F.R.S., late Inspector-General of Forests, India.
Sir Charles A. Elliott, K.C.S.I., late Lieutenant-Governor of Bengal.
Professor Francis A. Walker, LL.D., &c., President of Massachusetts Institute of Technology, Boston.

10th April 1897.

Professor James Dewar, M.A., LL.D., F.R.S., University of Cambridge and Royal Institution, London.
James Gairdner, Public Record Office, London.
Emeritus-Professor Sir Douglas Maclagan, M.D., &c.
John Rae, M.A.
The Right Hon. Lord Russell of Killowen, G.C.M.G., Lord Chief Justice of England.
John Turnbull Smith, C.A., F.F.A.
John Wyllie, M.D.

Bursaries, Scholarships and Prizes, &c., in the Faculty of Law.

I.—BURSARIES.

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patron.
I.	1873	The Grierson Trustees.	£80 0 0	3	1	About £26 13 4	Senatus.
II.	1873	Geo. Cairns, Solicitor.	19 0 0	1	1	About 19 0 0	Senatus.
III.	1878	DrAndrew Thomson.	100 0 0	4	4	25 0 0	Trus. of Dr Thomson.

I. There are three Grierson Bursaries, each of the value of £26, 13s. 4d. annually. Deserving students from the parishes of Crawford or Leadhills, applying to the Clerk of Senatus on or before the 1st day of September, are entitled to preference, if they satisfy certain conditions;[1] and if the applicant is commencing his first Winter Session of the Law Curriculum he will be entitled to hold the Bursary for three years, provided "he prosecutes his studies with proper diligence."[1] The subjects of examination are Elementary Latin, English, and Arithmetic. See Outline of Subjects, pages 115 and 116, and Time-Table of Examinations, page 120.

Failing preferential candidates, the Bursaries will be tenable for one year only, and will be awarded to candidates who have attended one year in the Faculty of Arts in some University. 1. In the case of those commencing their first Winter Session in Law, the award will be to the candidate who has passed highest in Latin and Moral Philosophy at the Arts Graduation examination in October. 2. In the case of candidates commencing their second Winter Session—to the most distinguished law-student of that standing, who, if not a Graduate in Arts, has passed satisfactorily in Latin and Moral Philosophy at the Arts Examination, either in October or earlier. 3. In the case of candidates commencing the third Winter Session of the Law Curriculum—to the most distinguished law-student of that standing who has passed satisfactorily in Latin, Moral Philosophy, and Logic at the Arts Examination in October or earlier. See Regulations, CALENDAR 1877-78, p. 370. *Bursars in* 1896—First year, *T. Hart.* Second year, *J. A. Inglis.* Third year, *William Burt.*

II. The competition for the Cairns Bursary, which is tenable for one

[1] See CALENDAR 1877-78, p. 370. By "proper diligence" is understood regular attendance on Classes, and reasonable proficiency in Class Examinations.

year only, and is not subject to any preferences, is subject to the same conditions as those for the second year Grierson Bursary. This Bursary is open to Students who have completed one year in the Law Faculty. *Bursar*—1896, *R. D. Phillip.*

III. For the *Thomson Bursaries* application should be made to Messrs Traquair, Dickson & Maclaren, 11 Hill Street. Candidates of the name of Thomson or Traquair, or natives of the town or county of Dumfries, or of the city of Edinburgh, are preferred. The Examination is in Latin and Moral Philosophy, and is the same as the October Examinations in those subjects for M.A. See CALENDAR 1879-80, p. 345. *Bursar*—1896, *William Smith.*

Bursaries in the Faculty of Arts, the holders of which may study in the Faculty of Law (see also under Faculty of Arts):—

No. of Foundation.	Year of Found.	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patron.
I.	1809	Dr Donald Grant, London.	£180 0 0 About	4	4	£45 0 0 About	Dr Grant's Trustees.
II.	1846	John Jamieson, Edinburgh.	26 0 0 About	1	4	26 0 0	Principal and Two Professors.
III.	1871	The Sibbald Bursaries.	150 0 0	5	3	30 0 0	Trustees of Dr J. R. Sibbald.
IV.	1883	Wm. Renton, Edinburgh.	19 19 6 About	1	1	19 19 6 About	Professors of Mathematics, Natural Philosophy, Chemistry, and Political Economy.
V.	1886	R. Allan, Feuar, Kelso.	90 0 0	3	3	30 0 0	Trustees of R. Allan.
VI.	1889	Daniel MacLaurin, London.	62 10 0	1	4	62 10 0	Town Council.

II.—SCHOLARSHIPS.

General Regulations for Vans Dunlop Scholarships.

Four Vans Dunlop Scholarships, each of about £100 per annum, tenable for three years, are more or less directly connected with the Faculty of Law:—

Candidates for a Vans Dunlop Scholarship must enter their names and addresses *at least a fortnight* before the date of examination, at the *Matriculation Office*, *University*, *Edinburgh*, and produce evidence that they are eligible. They are required to be Matriculated students of the year in which the competition takes place.

I. *Vans Dunlop Scholarship in Commercial and Political Economy and Mercantile Law*, for which both Law and Arts Students are eligible. For Regulations, see under Scholarships in Faculty of Arts.

Next vacancy in October 1898.

II. *Vans Dunlop Scholarship in the Law of Nature and Nations, Civil Law, and Constitutional Law and History.* The Regulations for competition are as follows :—

(*a.*) The Competition is open to all Candidates who, within the three years immediately preceding the date of competition, shall have graduated in Law in this University, or shall have passed the Graduation Examination in the three subjects of examination for the Scholarship : provided they have written papers of the LL.B. standard at the Graduation Examination, and have obtained an average of not less than 75 per cent. of marks in these subjects.

(*b.*) The Competition is by written Essays on branches of law to be announced at least one year before the date of competition. The precise subject of each of the essays will be set on the conclusion of the Graduation Examination in October.

(*c.*) The Examiners are the Professors of the prescribed subjects, assisted by the additional Law Examiners.

Next vacancy in October 1898.

1895. *Thomas Callender Wade, M.A., LL.B.*

III. *Vans Dunlop Scholarship in Scots Law and Conveyancing.*

(*a.*) The Competition is open to all Candidates who, within the three years immediately preceding the date of competition, shall have graduated in Law in this University, or shall have passed the Graduation Examination in Scots Law, Conveyancing, and Forensic Medicine : provided they have obtained at the Graduation Examination an average of not less than 75 per cent. of marks in these three subjects.

(*b.*) The Competition is by written Essays on (1) the Civil Law of Scotland, (2) the Criminal Law of Scotland, and (3) Conveyancing, the particular branches of which will be announced at least one year before the date of competition. The precise subject of each essay will be set on the conclusion of the Graduation Examination in October.

(*c.*) The Examiners are the Professors of the prescribed subjects, assisted by the additional Law Examiners.

Next vacancy in October 1897.

1896, Not awarded.

Conditions of Tenure.

Each holder of No. II. and No. III. of these Scholarships will be required to deliver, to the satisfaction of the Faculty of Law, two courses of three lectures each on one of the subjects of examination for the Scholarship, viz., one course in the second, and the other in the third year of his tenure.

IV. *Vans Dunlop Scholarship in History.*

For Regulations, see under Scholarships in Faculty of Arts.

Next vacancy in October 1898.

V. The Lorimer Travelling Scholarship.

The Lorimer Travelling Scholarship, of the annual value of about £50, tenable for two years, for the encouragement of the study of the "Law of Nature and Nations" in foreign Law Schools by Students and Graduates in the Faculty of Law, was founded by the Lorimer Memorial Committee and the Association for the better Endowment of the University. The Scholarship is open to Candidates who, during the two years immediately preceding that in which a scholar falls to be appointed, have completed the examinations for a Degree in Law in the University in the following subjects, namely—(1) The "Law of Nature and Nations" (including therein the Philosophy of Law); (2) The Civil Law; and (3) Either (*a*) Constitutional Law and History, or (*b*) Political Economy. The foreign Law School or Schools which the Scholar proposes to attend must be previously approved by the Faculty of Law. The Candidate who, in the opinion of the Faculty of Law, passes with most distinction in the examinations for Graduation in Law, in the subjects above set forth, during the two years immediately preceding the election, and who is willing to fulfil the conditions imposed by the Deed of Foundation, will be eligible, consideration being always given to his proficiency in the first of the above-named subjects, and to his knowledge of the modern language or languages spoken in the Law School or Schools where he proposes to study. For Deed of Foundation, see Calendar for 1892-93, p. 538.

This Scholarship may be offered for competition in July 1899.

VI. Gray Scholarship for Research.

For Regulations, see under Scholarships in the Faculty of Arts.

III.—WILLIAM DICKSON TRAVELLING FUND.

This fund is for the purpose of assisting Graduates of any Faculty of not more than three years' standing to travel for the purposes of study or research. For particulars, see page 178.

IV.—PRIZES.

The *Forensic Prize*, of the value of £10, founded in 1858 by the Forensic Society with the view of encouraging the study of Roman Law, is awarded annually either in July or in October, as may be found convenient. It can be competed for only by Students of the Civil Law Class during the preceding year. The Fund, amounting to about £280, is invested in the name of the Dean and Treasurer of the Faculty of Advocates and the Professors of Civil and Scots Law.

1896, Not awarded.

2. The *Muirhead Prize*, of about £15, 12s. 6d. annually, is awarded to

the Student who gains the first place in the Class of Civil Law, as determined by the results of the periodical examinations during both the Winter and Summer Sessions.

1896, *J. A. Inglis.*

SCHOLARSHIPS, BURSARIES AND PRIZES, &c., OPEN IN 1897-98.

Candidates for Scholarships must enter their names and addresses, and exhibit the necessary certificates, at the Office of the Clerk of Senatus at least fifteen days before the date of the competition.

The examination for first-year Bursaries is in Latin and Moral Philosophy. Candidates to give in their names on or before 1st October. Applicants for the second and third year Grierson Bursaries must apply on or before 15th October, and must state what distinctions they have attained in the Law Classes of the previous year.

Applications for grants from the William Dickson Travelling Fund must be lodged on or before 15th March.

Where the competition is open to Graduates, their standing will be computed from the date of the Graduation Ceremonial immediately following the completion of their Law Examinations.

I.—Scholarships.

No. I. will be offered for competition after the conclusion of the Graduation Examination in October 1898. For works recommended see under Faculty of Arts.

No. II. will be offered for competition after the conclusion of the Graduation Examination in October 1898.

The subjects of the Essays to be set will be taken from the following branches of Law :—

1. Diplomatic Agents and Diplomacy.
2. The Roman Law of Sale.
3. The U.S.A. Constitution, its history and principles.

No. III. of the above Scholarships will be offered for competition after the conclusion of the Graduation Examinations in October 1897. The subjects of the Essays to be set for this Scholarship will be taken from the following branches of Law :—(1.) Scots Law—Contracts and History of Criminal Law. (2.) Conveyancing—Heritable Rights.

No. IV. will be offered for competition after the conclusion of the Graduation Examination in October 1898. For subjects, &c., see under Faculty of Arts.

II.—Bursaries.

The subjects of examination for first-year Bursaries are Latin and Moral Philosophy, and are the same as the October Examinations in these subjects for M.A.

1, 2, 3. *Three Grierson Bursaries*, value £26, 13s. 4d. each, restricted in the first place to natives of the parishes of Crawford and Leadhills, and tenable for three years, whom failing they will be tenable for one year. One will be open to Students beginning their first Winter Session, one to Students beginning their second Winter Session, and one to Students beginning their third Winter Session (see general rule as to application, *sup.*).

3. The *Cairns Bursary*, value £19, tenable for one year (see general rule, *sup.*).

4. The *Sibbald Bursaries*, see page 144. Apply to Messrs Mackenzie, Innes & Logan, 23 Queen Street, Edinburgh, before 15th September.

5. A *Thomson Bursary*, of £25 a year, tenable for four years. Candidates must be Matriculated Students commencing their First Winter Session, in the Faculty of Law, and must intimate their intention to compete to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, the Agents for Dr Thomson's Trustees, and also to the Clerk of the Senatus on or before 1st October. Candidates of the name of Thomson or Traquair, or natives of the town or county of Dumfries or the city of Edinburgh, are preferred.

6. *Renton Bursary*, No. 21, page 186. The examination is in English and Elementary Mathematics as for first year open Bursaries in Arts. See dates of Examination, page 120. Names of Candidates to be entered at the Matriculation Office, on or before 17th September.

III.—Prizes.

1. The *Forensic Prize* of £10 is awarded annually, either for the best Essay upon a subject prescribed by the Professor of Civil Law, or as the result of a special examination held either in July or October. It can be competed for only by Students who have attended the Civil Law Class during the preceding year. The subject of Essay or date of Examination, as the case may be, is announced by the Professor early in the session.

2. The *Muirhead Prize*. See page 397.

3. The *William Dickson Travelling Fund*. See page 178.

4. The *Earl of Moray Fund for Research*. See page 178.

5. The *Lord Rector's Prize*. See No. 1, page 182.

6 and 7. *The Gray Prizes*. See Nos. 7 and 8, page 182.

The attention of all Bursars in the Faculty of Law is particularly called to the following Regulation:—

"Bursars connected with the Faculty of Law must annually attend and perform the work of at least one Class in the Faculty.

"Each Bursar must present a Certificate, signed by the Dean, attesting his regular attendance, &c., on each occasion on which he applies to the Factor for a payment."

Certificates, in terms of this regulation, will be given to Bursars by the *Dean of the Faculty of Law* after the 15th November; also at the end of the Session in April. In applying to the Dean for the Certificate in November, Bursars must present to him their Class Cards for the Session, as evidence that they have enrolled in their classes; and at the end of the Session they must present to him certificates from the Professors to the effect that they have attended with regularity and have performed the work of the Classes. Payments are made by the Factor for the University, Mr Henry Cook, W.S., 61 North Castle Street, Edinburgh, on and after 15th November for the Martinmas payments, and on and after 18th May for the Whitsunday payments,—between 10 and 3 o'clock.

N.B.—*Bursars and Scholars who desire to resign should at once announce this to the Factor. They must apply to the Factor for the instalments due to them within three months after they have become payable, otherwise they will be regarded as having resigned.*

L. J. GRANT, Bart., B.A.,
Dean of the Faculty of Law.

Faculty of Medicine.

Dean—PROFESSOR THOMAS R. FRASER, M.D., LL.D., F.R.S.

—o—

Programme of Classes.

WINTER SESSION, 1897-98.

Students who do not intend to graduate in Medicine in this University may attend any of the Classes in the Faculty on payment of the Matriculation and Class Fees. Those who intend to graduate must pass the Preliminary Examination before attendance on any Class will qualify for Graduation.

The Classes in the Faculty will be opened on Tuesday, 12th October, and will meet daily (Saturdays excepted), unless otherwise stated.

Classes.	Days of Opening and Hours of Lectures.	Professors.	Class Fees.[1]
Surgery	12 Oct., 9 o'cl.	Prof. Chiene, ...	£4 4
Materia Medica	12 Oct., 9 ,,	Prof. Fraser,	4 4
Pract. Mat. Medica, includ. Pharmacy	13 Oct., 10 ,,	Prof. Fraser,	3 3
Medicine	12 Oct., 10 ,,	Professor Sir T. Grainger Stewart,	4 4
Physiology or Institutes of Medicine	12 Oct., 10 ,,	Prof. Rutherford,	4 4
Practical Physiology	13 Oct., 3 ,,	Prof. Rutherford,	3 3
Chemistry	12 Oct., 10 ,,	Prof. Crum Brown	4 4
Chemistry—Advanced Course	4 Jan., 4 ,,	Prof. Crum Brown	2 2
Practical Chemistry	1 Dec., 11 and 2 o'cl.	Prof. Crum Brown	3 3
Midwifery & Diseases of Women & Childr.	12 Oct., 11 ,,	Prof. Simpson, ...	4 4
Advanced Botany[3]	12 Oct., 11 ,,	Prof. B. Balfour,	2 2[2]
Prac. Bot. (Advanced)[3]	12 Oct., 11 ,,	Prof. B. Balfour,	3 3[2]
Clinical Instruction in the Royal Infirmary	11 *daily*. . .	The Clinical Professors	Hospital Ticket.[4]
Clinical Surgery[5]—Royal Infirmary, *Mon. & Thurs.*	14 Oct., 12 ,,	Prof. Annandale,	4 4
Clinical Medicine[5]—Royal Infirmary, *Tues. & Fri.* ...	12 Oct., 12-2 o'clock	Professors Sir T. Grainger Stewart, Fraser, and Greenfield; and Simpson on Diseases of Women, ...	4 4

[1] Fees for second and subsequent attendances, see page 314.
[2] Besides Garden Fee of 5s.
[3] Three Months Course.
[4] For Fees, see pages 314 and 315.
[5] Only open to Students holding the Hospital Ticket.

WINTER SESSION—*continued.*

Classes.	Days of Opening and Hours of Lectures.	Professors.	Class Fees.[1]
Zoology (Elementary)[2]	12 Oct., 12 o'cl.	Prof. Ewart, ...	£4 4
Do. (Elementary Practical)[2]	12 Oct.		2 2[3]
Do. (Advanced)[2].	12 Oct., 1.30 ,,		3 3[3]
Anatomy	12 Oct., 1 ,,	Prof. Sir William Turner, ...	4 4
Practical Anatomy ...	5 Oct., *daily*		3 3
Pathology	12 Oct., 2 o'cl.	Prof. Greenfield,	4 4
Practical Pathology...	13 Oct., *daily*		3 3
		Lecturers.	
Cl. Instruc. on Dis. of Children at R. Hosp. for Sick Children[5]...	12 Oct., & 11 Jan., 11 o'cl.	Jas. Carmichael, M.D., John Playfair, M.D.,	2 2[4]
Practical Physiology (Advanced)[6].....	19 Oct., 11 ,,	E. W. Carlier, M.D., ...	4 4
Vertebrate Morphology (with Laboratory Work).....	12 Oct., 2 ,,	John Beard, D.Sc.	3 3[3]
Comparative Embryology	11 Jan., 2 ,,		3 3[4]
Physics[2].....	12 Oct., 3 ,,	C. G. Knott, D.Sc.	3 3
Regional Anatomy (Anatomical Demonstrations)	13 Oct., 4 ,,	David Hepburn, M.D., ...	2 2[7]
Mental Diseases, with Clinical Instruction at Morningside Asylum		T. S. Clouston, M.D., ...	2 2[4]
Diseases of the Eye...		G. A. Berry, M.B.	2 2[4]
Experimental Pharmacology.....	13 Oct.	W. C. Sillar, M.B., B.Sc.	3 3[4]
Pathol. Bacteriology	19 Oct.	Robert Muir, M.D.	3 3[4]

[1] Fees for second and subsequent attendences, see p. 314.
[2] Three Months Course.
[3] Besides charge of 10s. for Laboratory Expenses.
[4] Five Shillings University Entrance-Fee for Non-Matriculated Students.
[5] Two courses, each qualifying. Only open to Students holding the Hospital Ticket.
[6] This Class meets for two hours twice a week throughout the Winter Session.
[7] When taken along with Practical Anatomy, £1, 1s.

SUMMER SESSION, 1898.

The Classes will be opened as follows, and will meet daily (Saturdays excepted), unless otherwise stated.

Classes.	Days of Opening and Hours of Lectures.	Professors.	Class Fees.[1]
Elementary Botany.....	3 May, 8 o'cl.	Prof. Bayley Balfour,	£4 4[2]
Practical Botany.....	3 May, 9 ,,		2 2[2]
Field Demonstrations on *Saturdays*.			
Operative Surgery and Surgical Appliances	19 April.....	Prof. Chiene, ...	3 3
Medical Jurisprudence	3 May, 9 o'cl.	Prof. Sir Henry D. Littlejohn,	4 4
Prac. Materia Medica (incl. Pharmacy).....	3 May, 10 ,,	Prof. Fraser,....	3 3
Practical Morbid Anatomy and Pathology	3 May, 10 ,,	Prof. Greenfield,	3 3
Obstetrical and Gynecol. Operations—(*Tues. & Fri.*)	3 May, 10 ,,	Prof. Simpson,	3 3
Practical Physiology, including Histology....	3 May, *several hours.*	Prof. Rutherford,	3 3
Zoology (Elementary)..	3 May, 12 o'cl.	Prof. Ewart,	4 4
Zoology (Elemy. Prac.)	3 May.[4]		2 2[3]
Invertebrate Zoology...			2 2[3]
Do., with Laboratory Work.....			3 3[3]
Clinical Surgery,[5] Royal Infir. (*Mon. & Thur.*)	5 May, 12 ,,	Prof. Annandale,	3 3
Clinical Medicine,[5] Royal Infirmary (*Tues. & Fri.*)	3 May, 12 to 2	Professors Sir T. Grainger Stewart, Fraser and Greenfield; and Prof. Simpson on Dis. of Women.	3 3
Clinical Instruction in the Royal Infirmary..	12 *daily*. . .	The Clinical Professors.	Hospital Ticket.[6]
Physics	3 May, 12 ,,	Prof. Tait, ...	3 3
Chemistry (Organic)....	3 May, 1 ,,	Prof. Crum	2 2
Do. (Practical)..	3 May, 2 ,,	Brown,	3 3
Anthropology—(*Tues., Wed., Th.*)	3 May, 2 ,,	Prof. Sir W. Turner,	2 2[7]

[1] Fees for second and subsequent attendances, see page 314.
[2] Besides Garden Fee of 5s.
[3] Besides charge of 10s. for Laboratory Expenses.
[4] At hours to be arranged.
[5] Only open to Students holding the Hospital Ticket.
[6] See Fees, pages 314, 315.
[7] When taken with Practical Anatomy, £1, 1s.

SUMMER SESSION—*continued.*

Classes.	Days of Opening and Hours of Lectures.	Professors.	Class Fees.[1]
Practical Anatomy.....	3 May, *daily.*	Prof. Sir W. Turner and Demonstrators,	£ 2 s. 2
		Lecturers.	
Diseases of the Eye ...	9 May, 9 o'cl.	Geo. A. Berry, M.B.	2 2[2]
Clinical Instruction on Diseases of Children, at Royal Hospital for Sick Children[3]..... (*Tues. and Fri.*)...	6 May, 11 ,,	James Carmichael, M.D., John Playfair, M.D., ...	2 2[2]
Regional Anatomy (Anatomical Demonstrations)[4].....	3 May, 11 *daily.*	David Hepburn M.D.	
Mental Diseases, with Clinical Instruction at Morningside Asylum (*Mon. Wed. & Frid.*)	4 May, 3 o'cl.	Thos. S. Clouston, M.D., ...	2 2[2]

[1] Fees for second and subsequent attendances, see below.
[2] Five Shillings University Entrance-Fee for Non-Matriculated Students.
[3] Only open to Students holding the Hospital Ticket.
[4] Free when taken along with Practical Anatomy.

FEES FOR SECOND AND SUBSEQUENT ATTENDANCES.

Second attendances on £4, 4s. Courses, £3, 3s.; on £3, 3s. Courses, £2, 2s.; subsequent attendances free. Second attendances on £2, 2s. Courses, no reduction; third or subsequent attendances, £1, 1s. Second or subsequent attendances on Class of Diseases of Children, £1, 1s. Clinical Surgery: nine months' ticket, if taken primarily, £6, 6s. (perpetual ticket); three months' after a six months' Course, £3, 3s.; three months' primary entry, £3, 3s.; second three months, £2, 2s.; third three months, £2, 2s. Perpetual ticket for initial payment for any Course in the Faculty, £6, 6s. Practical Classes and Laboratories, no reduction.

OPPORTUNITIES FOR HOSPITAL PRACTICE.

Royal Infirmary, Edinburgh.—At 11 o'clock daily. 780 beds. Perpetual Ticket, in one payment, £12; Annual Ticket, £6, 6s.; Six

Months, £4, 4s.; Three Months, £2, 2s. Separate payments, amounting to £12, 12s., entitle to a Perpetual Ticket.

Royal Edinburgh Hospital for Sick Children.—96 beds, of which 24 are reserved for Surgical Cases. Hospital Ticket for one year, £1, 1s., entitling Student to attend the General Practice of the Hospital, and to take out the Classes.

Edinburgh Royal Maternity and Simpson Memorial Hospital.—38 beds available for Clinical Instruction. The fees charged are:—For each Six External Cases, £1, 1s.; for three months' course of Internal Clinical Instruction, £1, 1s.

City Hospital, Edinburgh.—For Fevers and Infectious Diseases. Total number of beds, 400. Average daily number of patients during 1896, 302. There is at present no fee charged.

Royal Edinburgh Asylum for the Insane.—300 beds, available for Clinical Instruction to members of the Class of Mental Diseases. The fee for the course is £2, 2s.

Number of beds available for the Clinical Instruction of Students of the University, 1614.

MATRICULATION.

Students are required to take out their Matriculation and Class Tickets not later than fifteen days after the beginning of the course. Matriculation consists in paying annually an entrance fee to the University, and in inscribing the name in the Students' Album.

All Candidates for Degrees, not Students of the University, availing themselves of the permission to attend the Classes of Extra-Academical Teachers in Edinburgh, must conform to the Regulations, Section VIII., 5, 6, page 344.

The Matriculation Fees, &c., are—

For the Academic Year (1st October to 1st October) .	£1 1 0
For the Summer Session only (1st May to 30th September)	0 10 6
Candidates appearing for Graduation Examinations or for Graduation, pay £1, 1s., unless previously matriculated for the whole year.	
University entrance-fee in lieu of Matriculation for each of certain additional Courses	0 5 0

CLASS SESSIONS.

There are Two Sessions in each year, viz.:—

I. The Winter Session, which opens on Tuesday, 12th October 1897, and closes on Friday, 18th of March 1898. Practical Anatomy and Public Health Laboratory work begin on the 5th of October 1897.

The Classes will meet for the last time before the Christmas

Vacation on Friday, 17th December 1897, and will reassemble on Tuesday, 4th January 1898.

II. The Summer Session, which opens on Tuesday, 3rd May, and closes on 15th July 1898.

LABORATORIES, MUSEUMS, &c.

The University contains the following Laboratories and Museums, several of the latter belonging in part to the Professors of the respective subjects :—

I. LABORATORIES.

THE PHYSICAL LABORATORY, established with the view of affording Students a practical knowledge of the construction and use of physical apparatus, and the mode of conducting experimental inquiries, is open daily from 10 to 3, under the superintendence of Professor Tait.

THE ROYAL BOTANIC GARDEN LABORATORY, open daily for the practical study of plants and for research, under the superintendence of the Professor, assisted by James Adam Terras, B.Sc., and J. H. Burrage, B.A.

PHYSIOLOGICAL LABORATORY, for the prosecution of Physiological Research, and for the study of Practical Physiology, open daily, under the superintendence of the Professor, assisted by E. W. Carlier, M.D., B.Sc. ; T. H. Milroy, M.D., B.Sc., and A. C. Sturrock, M.A., M.B.

PRACTICE OF PHYSIC LABORATORY, for the study of Medicine, and for research in connection with the Practice of Physic, open daily, under the superintendence of the Professor, assisted by J. Purves Stewart, M.A., M.B., C.M.

DISSECTING ROOMS, open daily under the superintendence of Professor Sir William Turner, assisted by David Hepburn, M.D. ; E. J. H. Fraser, M.B., C.M. ; Rhodes Haygarth, M.B., C.M. ; and other assistants. Open 5th October 1897, and 3rd May 1898.

THE CHEMICAL LABORATORIES (distinct from the Practical Chemistry Room), completed in 1885, contain accommodation for forty Students, and are fitted with all necessary apparatus for chemical analysis and research. They are open daily, under superintendence of the Professor, assisted by Leonard Dobbin, Ph.D. ; Hugh Marshall, D.Sc., and J. P. Longstaff.[1]

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[1] Fees for Chemical Laboratory :—*Whole day*—Winter Session, £10, 10s. ; Oct.-Dec., Jan.-March, or Summer Session, £5, 5s. *Half day*—Winter Session, £6, 6s., Oct.-Dec., Jan.-March, or Summer Session, £3, 3s. Preference will be given to Students in the above order. Students who are not Matriculated may attend the Chemical Laboratory on payment of the Entrance Fee of 5s., in addition to the Laboratory Fee.

Obstetrical and Gynecological Laboratory, for research and study of practical work, under the superintendence of the Professor, assisted by W. Fordyce, M.A., M.D.

Tutorial Class of Clinical Medicine, in the Wards of the Royal Infirmary, by Harry Rainy, M.A., M.B., C.M.; D. A. Welsh, M.B.; George Elder, M.D.; under the superintendence of the Clinical Professors.

Natural History Laboratories, for study of the structure and development of Invertebrate and Vertebrate forms, open daily, under the superintendence of the Professor, assisted by J. Beard, D.Sc., Ph.D., and Gregg Wilson, M.A., B.Sc., Ph.D.[1]

Materia Medica Laboratories, for the study of Practical Materia Medica and Practical Pharmacy, and for Pharmacological and Pharmaceutical research, open daily, under the superintendence of the Professor, assisted by William C. Sillar, M.B., C.M., B.Sc., and Andrew Robertson Wilson, M.A., M.B.

Tutorial Class of Clinical Surgery and Surgical Pathology, in the Infirmary, by John Wheeler Dowden, M.B., C.M., and the Resident Surgeons, under the superintendence of the Clinical Professor.

Public Health Laboratory, for Hygienic investigation, comprises three departments, viz.: a Chemical, a Bacteriological, and a Meteorological Department, open daily, under the superintendence of the Professor, assisted by Charles Hunter Stewart, M.B., C.M., D.Sc., and J. Buchanan Young, M.B., C.M., D.Sc. Opens 5th October 1897 and 3rd May 1898.[1]

Surgical Laboratory, divided into two parts—(*a*) General Surgical Pathology, (*b*) Bacteriology,—is utilised for teaching Systematic Surgery, and every facility is afforded for investigation, under the superintendence of the Professor, assisted by Harold J. Stiles, M.B., C.M.

Pathological Laboratory, for the study of Pathological Anatomy and for Pathological Research, including Histological and Bacteriological Departments, under the superintendence of the Professor, assisted by Robert Muir, M.A., M.D., and D. A. Welsh, M.A., B.Sc., M.B., C.M.

The Royal Edinburgh Asylum is open to members of the Class of Mental Diseases for Practical Instruction, under the superintendence of the Physician-Superintendent.

Practical Instruction in the use of the Ophthalmoscope and in the detection of errors of refraction is given to members of the Class of Diseases of the Eye at the Eye Wards of the Royal Infirmary, under the Superintendence of the Lecturer.

II. MUSEUMS. See page 51.

[1] Fees—Winter Session, £10, 10s.; Summer Session, £6, 6s.

GENERAL MEDICAL COUNCIL REGISTRATION OF STUDENTS OF MEDICINE.

According to the Regulations of the General Medical Council of the United Kingdom, all Medical Students must register in the Medical Students' Register of the General Medical Council within fifteen days after the commencement of Medical Study. Forms of application and full information regarding Registration may be obtained from James Robertson, Registrar of the Branch Council for Scotland, 48 George Square, Edinburgh, or at the Office of the Faculty of Medicine.

MINIMUM CURRICULUM FOR DEGREES OF M.B. AND Ch.B., WITH SUGGESTED ORDER OF STUDY AND EXAMINATION.

Before beginning Medical Study, students must pass the Preliminary Examination in General Education, either at the University, or elsewhere, according to the requirements of the University. Immediately after entering on Medical Study, students must register in the books of one or other of the Registrars of the General Medical Council. The Registrar for Scotland is Mr James Robertson, 48 George Square, Edinburgh, from whom forms of Registration and all information on the subject may be obtained.

Medical Study may be begun either in October (Winter Session) or May (Summer Session), and must be engaged in for at least five years.

A.—*For Students beginning in Winter.*

FIRST WINTER SESSION.
- Chemistry, including Practical Chemistry.
- Physics,[1] or Elementary Zoology.
- Anatomy (Lectures).
- *Examination in Chemistry, including Practical Chemistry, and either Physics or Elementary Zoology.*

FIRST SUMMER SESSION.
- Elementary Zoology or Physics.[1]
- Elementary Botany.
- *Examination in Elementary Botany and Elementary Zoology or Physics.*

SECOND WINTER SESSION.
- Practical Anatomy.
- Physiology.
- Surgery.

SECOND SUMMER SESSION.
- Practical Physiology.
- Practical Materia Medica.
- Clinical Surgery (with Dressership).
- Hospital.

THIRD WINTER SESSION.
- Materia Medica.
- Practical Anatomy.
- Clinical Surgery (with Dressership).
- Hospital.

[1] Three months' course.

Examination in Anatomy, Physiology, and Materia Medica and Therapeutics (the last may be postponed to the end of the following summer).

THIRD SUMMER SESSION.

Practical Pathology.
Medical Jurisprudence and Public Health.
Clinical Medicine.
Hospital.
Examination in Materia Medica and Therapeutics (if not previously taken).

FOURTH WINTER SESSION.

Pathology.
Medicine.
Midwifery and Diseases of Women and Children.
Clinical Medicine (with Clerkship).
Hospital.
Examination in Pathology, and in Medical Jurisprudence and Public Health (the latter may be postponed to the end of the following summer).

FOURTH SUMMER SESSION.

Examination in Medical Jurisprudence and Public Health (if not previously taken).

FOURTH SUMMER AND FIFTH WINTER SESSION.

Clinical Medicine.
Clinical Surgery.
Mental Diseases.
Ophthalmology.
Post-mortem Examinations.
Fevers.
Diseases of Children.
Out-practice of an Hospital, Dispensary, &c.
Midwifery Cases and Practice.
Vaccination.
Hospital.

FIFTH SUMMER SESSION.

Examination in Surgery and Clinical Surgery, Medicine and Clinical Medicine, and Midwifery.

B.—*For Students beginning in Summer.*

FIRST SUMMER SESSION.

Elementary Botany.
Elementary Physics.[1]
Examination in Elementary Botany and Physics.

FIRST WINTER SESSION.

Chemistry, including Practical Chemistry.
Elementary Zoology.
Anatomy (Lectures).
Examination in Chemistry, including Practical Chemistry and Elementary Zoology.

SECOND SUMMER SESSION.

Practical Anatomy.
Practical Physiology.

SECOND WINTER SESSION.

Physiology.
Surgery.
Practical Anatomy.

THIRD SUMMER SESSION.

Practical Anatomy.
Practical Materia Medica.
Clinical Surgery (with Dressership).
Hospital.

THIRD WINTER SESSION.

Practical Anatomy.
Materia Medica.
Clinical Surgery (with Dressership).
Hospital.
Examination in Anatomy, Physiology, and Materia Medica and Therapeutics (the last may be postponed to

[1] Three months' course.

the end of the following summer).

FOURTH SUMMER SESSION.

Practical Pathology.
Medical Jurisprudence and Public Health.
Clinical Medicine.
Hospital.
Examination in Materia Medica and Therapeutics (if not previously taken).

FOURTH WINTER SESSION.

Pathology.
Medicine.
Midwifery and Diseases of Women and Children.
Clinical Medicine (with Clerkship).
Hospital.
Examination in Pathology, and Medical Jurisprudence and Public Health (the latter may be postponed to the end of the following summer).

FIFTH SUMMER SESSION.

Examination in Medical Jurisprudence and Public Health (if not previously taken).

FIFTH SUMMER AND FIFTH WINTER SESSION.

Clinical Medicine.
Clinical Surgery.
Mental Diseases.
Ophthalmology.
Post-mortem Examinations.
Fevers.
Diseases of Children.
Out-Practice of an Hospital, Dispensary, &c.
Midwifery Cases and Practice.
Vaccination.
Hospital.
Examination in Surgery and Clinical Surgery, Medicine and Clinical Medicine, and Midwifery.

Courses of Lectures, &c.

1897-1898.

I. BOTANY.

PROFESSOR BALFOUR.

Winter Session, 1897.

LECTURES.—A three months' course of Advanced Lectures and an Advanced Course in Practical Botany will be given in the Winter Session.

Summer Session, 1898.

1. LECTURES.—The course is a general one—Morphological, Physiological, and Taxonomic. Lectures are given every Monday, Tuesday, Wednesday, Thursday, and Friday. In

addition, lectures on special parts of the subject are given at intervals during the Session.

2. PRACTICAL CLASS.—In this class opportunity is given for the examination of microscopic structure of plants, and for the study of life-histories of plants illustrating the lectures. It is conducted by the Professor and Assistants.

3. EXCURSIONS. — Excursions are made on Saturdays for the practical study of plants in the fields.

The Royal Botanic Garden, with the Botanical Museum and Herbarium, are open daily for the examination of living as well as preserved specimens of plants.

II. NATURAL HISTORY.

PROFESSOR EWART.

1. LECTURES ON ZOOLOGY.—*Winter Session.*—The first part of the course will treat of the Principles of Biology as illustrated by the Life-History, Morphology, and Physiology of one of the Vertebrata. The Distinctive Characters of the Chordata and the structure, habits, &c., of a series of vertebrate types will next be considered. The rest of the course will be chiefly devoted to : (1.) Leading types of Invertebrates ; (2.) Structure and life-history of the more important animal parasites ; and (3.) Elements of Embryology, Classification, and Geographical Distribution of Animals.

Summer Session.—An Elementary Course, qualifying for the First Professional and the First B.Sc. Examinations, and *pro tanto* for graduation in Arts, will be given by the Professor, during the Summer Session 1898.

2. ELEMENTARY PRACTICAL ZOOLOGY.—*Winter and Summer Sessions.*—In these Classes Students have the opportunity of studying practically the more important types described in the Lectures, amongst others :—Amœba, Paramœcium, Hydra, Hirudo, Arenicola, Helix, Astacus, Raia, Rana, Columba, and Lepus.

3. ADVANCED COURSES.—These Courses are intended to assist students preparing for the Degree of B.Sc. in Zoology.

(1.) The Intermediate Course will be held during the Summer Session, and will be devoted to the Systematic Zoology of the Invertebrata. This class is prescribed for the Second B.Sc. Examination in Zoology and Comparative Anatomy.

(2.) During the first half of the Winter Session an Advanced Course of Lectures and Laboratory work will be given by Dr Beard, University Lecturer on Vertebrate Zoology, on the Comparative Morphology of the Vertebrata. (See Faculty of Science).

The Laboratory work will extend over the first half of the Winter Session and the Summer Session.

RESEARCH WORK.—The Laboratories are also available during both Sessions for research. For Regulations, see page 352.

COMPARATIVE EMBRYOLOGY.

VERTEBRATE MORPHOLOGY.

J. BEARD, D.SC.

For Synopses, see under Faculty of Science.

III. CHEMISTRY.

PROFESSOR CRUM BROWN.

1. LECTURES—In the Lectures the general laws of chemical action are explained and illustrated.

The chief non-metallic elements and their more important compounds are discussed in detail. The metals and the different series of metallic salts are considered more generally, details being given in the case of the more important substances.

The principles upon which the classification of organic substances is based are explained, and the properties of the chief groups illustrated by means of examples.

Tutorial Classes, once a week, are conducted by Dr Dobbin.

A course of 50 lectures on Organic Chemistry is delivered in Summer.

A Class for Advanced Students is held in Winter. The

subject for the Winter of 1897-98 is "Selected Chapters in Inorganic Chemistry."

2. LABORATORY.—In the Laboratory, Students who can devote several hours each day to work, are taught Chemical Analysis (including Mineral Analysis, Organic Analysis, and Gas Analysis), the preparation of chemical substances, and the examination and determination of their properties. Full equipment for instruction in metallurgical work and assaying has recently been provided. Students who are sufficiently advanced in such practical work may engage in the investigation of chemical problems under the superintendence of the Professor and the chief assistant.

3. PRACTICAL CLASSES.—The work of these classes consists in the study of the reactions of the commoner Salts.

Class-Book.—Notes on Reactions of Salts (Thin).

Students who have worked at least three months in the Laboratory need not attend the class of Practical Chemistry before appearing for the First Professional Examination in Medicine, for the First B.Sc. Examination, or for Examination in Chemistry for M.A.

IV. PHYSICS.

PROFESSOR TAIT.

CARGILL G. KNOTT, D.SC., *Lecturer.*

The subjects embraced in the Course of Physics are :—

1. Properties of Matter—including Inertia, Gravitation, Molecular Forces, &c.

2. Abstract Dynamics—including Kinematics and Newton's Laws of Motion, with their consequences as regards Statics and Kinetics of Solid, Liquid, and Gaseous Bodies, and the Physical Measurement of Time.

3. Sound, and Wave-propagation in general, Intensity, Pitch, and Quality of Musical Sounds, Harmonics, Concords, &c.

4. Heat, its Nature, Effects, Measurement, Transference, and Transformations—Measurement of Temperature and of Absolute Temperature ; Thermo-dynamics.

5. Light (1) Geometrical Optics, Speed of Light, Laws of Reflection and Refraction; Construction and Effects of Mirrors, Prisms, Lenses, and Microscopes; Images, Conditions of Distinct Vision; (2) Physical Optics, Interference, Dispersion, Diffraction, Double Refraction, Polarization, Spectrum Analysis.

6. Electricity, including Frictional and Voltaic Electricity, Thermo- and Magneto- Electricity, Electro-Dynamics, and Magnetism, with their practical applications. Measurements of Potential, Electromotive Force, Current, &c., Batteries, Dynamos, Electrometers, Galvanometers, Voltameters, &c.

V. ANATOMY.

PROFESSOR SIR WILLIAM TURNER.

Winter Courses.

1. LECTURES ON ANATOMY, at 1 P.M.—It is intended in this Course to bring before the Student, in a systematic manner, the structure of the Human Body. The different systems and organs will be described, both in the more obvious arrangements and relations of parts which can be examined by the naked eye, and in their more minute or microscopic structure. The Course includes, therefore, both Textural or General Anatomy and Descriptive Anatomy. The Lectures are illustrated by recent dissections, by wet and dry preparations, by a large collection of Osteological specimens, and by drawings and diagrams. Structures too minute to be recognised by the naked eye are demonstrated under the Microscope.

To assist the Junior Members of the Lecture Class to acquire a knowledge of Osteology, Tutorial Demonstrations on the bones will be given during the earlier months of the Session without additional fee. All the members of this class have access to a systematically arranged series of osteological specimens and of models. Written Examinations for both Junior and Senior Students are held periodically during the Session.

Text-Books.—Gray's "Anatomy," or Cleland and Mackay's

"Anatomy," Quain's "Elements of Anatomy," Holden's "Osteology."

2. PRACTICAL ANATOMY, under the superintendence of the Professor, aided by the Demonstrators, David Hepburn, M.D., C.M.; E. H. Fraser, M.B., C.M.; Rhodes Haygarth, M.B., C.M.; and by several other assistants. Examinations of both Junior and Senior Students on dissected parts are conducted by the Demonstrators and the Professor. Special tutorial Demonstrations will be given to Senior Students on the joints, brain, organs of special sense, and other viscera.

This Course will commence on 5th October. The Dissecting-rooms are open from 9 A.M. to 5 P.M., and on Saturdays from 9 A.M. to noon. The Mackenzie Bursaries are awarded to members of this Class for proficiency in dissection.

Text-Books.—"Demonstrations of Anatomy," by Ellis, or Heath's "Practical Anatomy," or Holden's "Manual of the Dissection of the Human Body," or Cunningham's "Manual of Practical Anatomy."

REGIONAL ANATOMY (ANATOMICAL DEMONSTRATIONS).

DAVID HEPBURN, M.D., *Lecturer.*

In this Course, which is conducted in the Theatre, the structure of the human body is displayed and demonstrated topographically, from the surface inwards.

This Class meets eighty times, and non-competitive Written Examinations are held monthly during the Session.

Summer Courses.

PRACTICAL ANATOMY.

PROFESSOR SIR WILLIAM TURNER.

This Course, beginning on 3rd May, is the same as in Winter. The Rooms are open from 9 A.M. to 5 P.M.; on Saturdays from 9 A.M. to noon. Examinations are conducted on dissected parts by the Professor and by the Demonstrators, David Hepburn, M.D., C.M.; E. H. Fraser, M.B., C.M.; Rhodes Haygarth, M.B., C.M.; and other assistants, and the joints, brain, and organs of sense will be specially demonstrated.

REGIONAL ANATOMY (ANATOMICAL DEMONSTRATIONS).

DAVID HEPBURN, M.D., *Lecturer.*

This Course, open without additional Fee to those engaged in Practical Anatomy in the Summer, will consist of demonstrations on some special departments of Anatomy.

VI. PHYSIOLOGY.

PROFESSOR RUTHERFORD.

Course of at least 100 Lectures, held in Winter : —

1. The Structure, Composition, and Functions of the Elementary Tissues of the Body.

2. The Nutrition of the Body, including Circulation, Respiration, Alimentation, Nutrition of the Tissues, Excretion, together with the minute structure of the organs concerned.

3. Animal Heat.

4. Voice and Speech.

5. The minute structure and physiology of the Sense organs and the special physiology of the Nervous System.

6. Reproduction and Development.

There is a printed Syllabus with short notes of the Lectures.

PRACTICAL PHYSIOLOGY.

This Course is divided into three sections—

1. *Practical Histology*, in which every Student prepares, examines, and preserves for himself most of the tissues and organs of the body. Each student is provided with a microscope, and all reagents.

2. *Practical Chemical Physiology*, in which every student performs the qualitative and quantitative analysis of the Urine in its normal and abnormal conditions, with special reference to clinical work, and such practical work at the Chemistry of Proteids and Carbohydrates, Blood, Milk, Bile, and Digestion, as is possible in a class. There is a printed Syllabus with short notes of this section of the Course.

The above sections of the class are held both in Winter and in Summer. The class meets sixty times.

3. *Demonstrations of Physiological Instruments.*—This section of the class is held only in Winter, and is open to all who have attended the other sections of the course.

Advanced Practical Physiology.

See Synopsis under Faculty of Science.

Physiological Research.

The Physiological Laboratory is open daily for the prosecution of Research. Application must be made to the Professor.

VII. MATERIA MEDICA.

PROFESSOR THOMAS R. FRASER.

Materia Medica comprises the subjects of pharmacognosy, pharmacy, pharmacology, and therapeutics, diet, remedial uses of electricity and galvanism, heat and cold, climate, &c. Instruction in Materia Medica is given in (A) a course of 100 Lectures during the Winter Session, and in (B) Practical Classes during the Summer Session, and of equivalent duration during the Winter Session.

A.—Lectures on Materia Medica—This course includes the natural history, sensible and chemical properties, physiological action (or pharmacology), therapeutical uses, and modes of administering remedies, ordinarily so called. Such remedies consist of (*a*) inorganic substances; (*b*) chemical products; (*c*) vegetable substances; (*d*) animal substances. Although formerly comprised in the course of instruction in Materia Medica, the remedial uses of Diet, Electricity, Climate, &c., cannot now be taught with any advantage in this course, as, under the New Medical Ordinances, the study of Materia Medica is required to be completed before the student has entered upon the study of the diseases to which the above are applicable.

B.—Practical Classes.—*Practical* instruction is given in the following subjects, which cannot satisfactorily be taught in lectures:—1. Pharmacy, or the processes for obtaining the pharmaceutical preparations of drugs. 2. Prescription-writing.

3. Dispensing, or the making up of medicines in forms suitable for administration in disease.

It is recommended that the Practical Class be attended before the lectures on Materia Medica. Practical classes are taught in the Summer Session daily, at such hours as are found most convenient. A winter class will also be formed in October.

Research Laboratories.

The above laboratories will be open daily for research on the pharmacological action and chemical composition of medicinal substances, under the superintendence of the Professor and his assistants. Application to be made to the Professor.

EXPERIMENTAL PHARMACOLOGY.

W. C. SILLAR, M.B., C.M., B.Sc., *Lecturer.*

This course consists of (1) practical instruction in the methods employed in pharmacological research and (2) the experimental study of the pharmacological action of a number of typical medicinal substances.

The Course is adapted for students who desire a practical knowledge of pharmacology, and who have attended the Class of Materia Medica.

Attendance at the Class of Advanced Practical Physiology is recommended.

The Course will commence in October.

VIII. PATHOLOGY AND MORBID ANATOMY.

PROFESSOR GREENFIELD.

This Course includes General Pathology, General Pathological Anatomy and Histology, and Systematic Morbid Anatomy :—

1. General Pathology (including General Pathological Anatomy), *i.e.*, the study of the processes of disease, &c. Under this head are considered Degenerative Processes, Inflammation, Repair, Morbid Growths, &c.

2. General Etiology is treated in fuller detail with reference to Parasitic and Infective Diseases, and includes Bacteriology and methods of bacteriological research.

3. Systematic Morbid Anatomy and Histology—a study of the more important diseases of the principal systems and organs of the body.

In illustration of the lectures, there are frequent naked eye, microscopic, and lantern demonstrations.

Practical Pathology.

Classes for Practical Instruction in Morbid Anatomy and Pathological Histology are conducted in the Pathological Laboratory—microscopes and other necessary apparatus being supplied. The Course consists of—1st. Naked Eye Demonstrations; 2nd. Histological investigation and preparation of Morbid Structures and Organs; 3rd. Elementary Bacteriology.

In Winter the class meets five times a week, from the beginning of the Session till the end of January; in Summer, five times a week, from the beginning of May till the end of July.

The Laboratory is also open daily from 10 A.M. till 4 P.M. for Pathological Research, under the Professor and his Assistants.

Pathological Bacteriology.

ROBERT MUIR, M.D., *Lecturer.*

The Course is a practical one, consisting of Laboratory Instruction, Demonstrations, and Lectures:—(a) *General.*—Morphology and Life History of Micro-organisms; Preparation of Culture Media; Methods of Isolation and Cultivation, including Anaerobic Cultures; Methods of Staining; Separation of Bacterial Products; Inoculation, &c.

(b) *Special.*—A Systematic Study of Organisms Pathogenic to the Human Subject—their characters, their modes of producing disease, &c. A number of the more important non-pathogenic organisms are also studied.

The Course is given in Winter, but may also be given in Summer.

IX. MEDICAL JURISPRUDENCE.

PROFESSOR SIR HENRY DUNCAN LITTLEJOHN.

Part I.—Medical Jurisprudence.

MEDICAL EVIDENCE GENERALLY.

(1.) Documentary—(2.) Oral—(3.) Experimental—Examination of the living; identity; examination of the dead; identity; cause of death; exhumations, autopsies.

MEDICAL EVIDENCE SPECIALLY.

Questions affecting Health or Life.—(1.) Assaults and Homicide—Wounds and other external injuries; asphyxia. Starvation. Heat and cold. Poisons—(2.) Suicide—(3.) Offences against Chastity — Rape, &c.; concealment of pregnancy; criminal abortion; infanticide—(4.) Malpraxis and Neglect of Duty.

Questions affecting Civil Rights or Social States.—Marriage and Divorce. Impotence and sterility. Live birth. Survivorship. Insanity. Feigned diseases.

Part II.—Medical Police. Public Health.

HYGIENE OF INDIVIDUALS.

Man—Age and development. Sex. Constitution.

External Agencies—Food and drink. Air. Clothing. Ablutions. Exercise.

Habits and Modes of Life—Temperance. Celibacy and Marriage. Professions: learned, mechanical, criminal. Punishments. Prostitution.

Duration and Expectancy of Life—Life Assurance.

HYGIENE OF COMMUNITIES.

Sanitary Administration. — Climate — Causing disease; remedying disease.

Towns, Camps, and Private Habitations—Topographical position; water supply; heating and lighting; ventilation; drainage and sewerage.

Public Buildings.—Schools; churches; hospitals; theatres; prisons.

Cemeteries. Quarantine Establishments. Epidemics; Endemics. Disinfectants.

Text-Books. — Taylor's "Medical Jurisprudence," Guy's "Principles of Forensic Medicine," Parkes' "Practical Hygiene," Wilson's "Handbook of Hygiene," Louis Parkes' "Hygiene," Wynter Blyth's "Manual of Public Health," Whitelegge's "Hygiene and Public Health," Smith's "Laws Concerning Public Health," Vesey Fitzgerald's "Epitome of the Laws affecting Health," Newsholme's "Vital Statistics," Dykes' and Stuart's "Manual of Public Health Acts."

Public Health Laboratory.

The Laboratory comprises the Chemical Laboratory, the Bacteriological Laboratory, and a station for meteorological observations, and the examination of emanations from the soil —all open daily during the Winter and Summer Sessions, from 10 to 4, under superintendence of the Professor, assisted by Charles Hunter Stewart, D.Sc., M.B., and James Buchanan Young, M.B., D.Sc. (P.H.).

The work in these Laboratories will constitute an advanced course in the Methods of Hygienic investigation, and is intended for those preparing for the Degrees of Science in Public Health, or for the duties of Medical Officer of Health.

X. PRACTICE OF PHYSIC.

PROFESSOR SIR THOMAS GRAINGER STEWART.

This Course comprises—

I. An account of the nature, and more particularly of the clinical characteristics, and the treatment of the different types of morbid action.

II. An account of the morbid anatomy, clinical history, causes, diagnosis, prognosis, and treatment of the diseases of the different systems and organs.

It is intended that each course shall be, as far as possible, complete; but that, while the general principles (included in Part I.) shall be fully discussed each session, the diseases of individual systems (included in Part II.) shall be taken up in

different order year by year, and certain systems selected for more minute consideration.

The course is illustrated by specimens from the Anatomical Museum, and from the Professor's private collection, as well as by numerous drawings, diagrams, and charts.

Tutorial Class.

Practical instruction in connection with the Course is given to the members of the Class by the Assistant.

Text-Books. — Fagge's, Roberts's, Bristowe's, Osler's, or Frederick Taylor's "Practice of Medicine." Students are also advised to consult the Professor's "Introduction to the Study of Nervous Diseases," his "Clinical Lectures on Important Symptoms."

MENTAL DISEASES.

THOMAS S. CLOUSTON, M.D., *Lecturer.*

This course consists of—

1. Systematic Lectures in the University during the Summer Session on the Classification, Symptoms, Causes, and Treatment of Mental Diseases.

2. Pathological demonstrations, naked eye, lantern, and microscopic, in the University and at the Royal Asylum, Morningside, of the Morbid Anatomy of Insanity. Students will have an opportunity of original investigation in the Pathological Museum of the Asylum, under the Pathologist of the Institution.

3. Clinical instruction at the Royal Asylum, Morningside (West House), in all the forms of Mental Disease. Students have the opportunity of personally coming in contact with and examining the cases, so as to learn the modes of managing and dealing with patients labouring under Mental Disease, and they are exercised in the diagnosis of Insanity and the drawing up of certificates; the aim being to enable them to recognise its early stages, to distinguish its varieties, to adopt suitable treatment, and to advise the relatives as to sending the patient to an asylum. There is a clinical field of 500 beds, comprising all

the wards except those for private patients. This part of the course extends through the Summer and the last month of the Winter Session.

4. Instruction in regard to the medico-legal, hereditary, educational, and social relations of Mental Disease, and on its bearings and significance in ordinary medical practice.

There are Free Clinical Clerkships, tenable for three months, in the Royal Edinburgh Asylum, and in several other Asylums, in connection with the class.

Text-Book.—Dr Clouston's "Clinical Lectures on Mental Diseases."

XI. SURGERY.

PROFESSOR CHIENE.

Winter Session.

1. *Lectures.* This course is devoted to a systematic consideration of the Principles and Practice of Surgery. Each course is intended to embrace, as far as possible, a complete view of the present aspects of the Science and Practice of Surgery.

Written examinations are held at stated periods, and at the end of the Session a practical examination is held on the work of the Tutorial Classes.

2. *Tutorial Instruction*, at hours most convenient for the students, includes—

(*a.*) *Practical Instruction* in *Bandaging* and the *Treatment* of *Fractures* and *Dislocations* on the living subject. This class is divided into sections for Senior and Junior Students.

(*b.*) Demonstrations of Surgical Instruments and Appliances.

(*c.*) Weekly Demonstrations on the Surgery of the Eye and Ear and on Surgical Pathology, illustrated by museum specimens.

(*d.*) Weekly Revisal of the Lectures, together with Demonstrations of the Preparations in the Surgical Museum illustrative of the Lectures on Surgery.

(*e.*) Lantern Demonstrations on Surgical Pathology.

Summer Session.

The Summer Session is devoted to the Practical Aspects of Surgery. Special attention is given to Surgical Anatomy and Operative Surgery. The class meets in April, May, and June.

Oral examinations and tutorial instruction in the Treatment of Fractures and Dislocations, and in the uses of surgical instruments, form a special part of the course. Special demonstrations on Surgical Pathology.

The Surgical Laboratory for (1) Surgical Pathology; and (2) Bacteriology, is open daily for original work during the Winter and Summer Sessions, under superintendence of the Professor, assisted by Harold J. Stiles, M.B. Applications to be made to the Professor.

Text-Books—Winter Session.—The Professor's "Lectures on the First Principles of Surgery." Keen and White's Text-Book of Surgery. *Summer Session.*—The Professor's "Lectures on Surgical Anatomy," and Joseph Bell's "Manual of Surgical Operations," 1892; Kocher's Operative Surgery (translated by H. J. Stiles).

DISEASES OF THE EYE.

GEORGE ANDREAS BERRY, M.B., *Lecturer.*

The course will consist of twelve systematic lectures in the University, and of twelve clinical lectures at the Royal Infirmary.

In addition there will be meetings for individual clinical instruction, including Refraction and Ophthalmoscopy.

Text-Books.—Berry's "Diseases of the Eye," Swanzy's "Handbook on Diseases of the Eye," Nettleship on "Diseases of the Eye," Fuch's "Text-Book of Ophthalmology."

XII. MIDWIFERY AND THE DISEASES OF WOMEN AND CHILDREN.

PROFESSOR SIMPSON.

The Course of Instruction comprises Lectures on—

I. Anatomy and Physiology of the Female Organs of Reproduction.

II. Physiology, Pathology, and Therapeutics of Pregnancy.

III. Parturition—Natural (Eutocia), and Morbid (Dystocia).

IV. Hygiene, Pathology, and Therapeutics of the Puerperal State.

V. Hygiene, Pathology, and Therapeutics of Infancy.

VI. Special Pathology and Therapeutics of the Female Organs of Reproduction.

One day weekly is devoted to the Gynecological Section of the Course; and the Diseases of Women may be studied clinically in the Royal Infirmary, in the Buchanan Medical Ward, in connection with the class of Clinical Medicine.

Midwifery may be studied clinically in the Royal Maternity, of which the Professor is, *ex officio*, one of the Medical Officers, and where he attends during the first three months of the Winter Session. The Professor makes a special Clinical visit with the Students who have taken the Maternity Ticket, on Saturdays, at 10 A.M.; and he or one of the Assistant Physicians gives Clinical Instruction on Wednesday afternoons at 4 P.M.

After the Class-roll is made up, Tutorial classes are formed for Practical Instruction in the use of Obstetric and Gynecological Instruments and Appliances.

Summer Session.

A Course of Instruction in Obstetric and Gynecological Operations, with Demonstrations of the use of Instruments and Appliances, is conducted in the Summer Session, at 10 A.M.

On Tuesdays and Fridays the Professor gives Lectures and Demonstrations. On the other days the sections of the class are trained in the investigation and treatment of Female Diseases, and the members of the class have an opportunity of practising operations on lay figures.

Text-Books.—Playfair's, Lusk's, or Parvin's "Midwifery." The Professor's "Contributions to Obstetrics and Gynecology." Hart and Barbour's "Manual of Gynecology." Ballantyne's "Diseases of Infancy."

XIII. CLINICAL SURGERY.

PROFESSOR ANNANDALE.

The subjects of this Course are the symptoms, diagnosis, and treatment of Surgical diseases and injuries as met with in the

living body, and the modifications and complications which occur in connection with them. Patients are brought before the class in the special University Clinical Theatre of the Infirmary, and their conditions are carefully examined and discussed, due regard being taken to avoid injuring their feelings or aggravating their disease. The history and nature of the case having been studied, the proper treatment is suggested and described, and any required operations are carried out then or at the first convenient opportunity. Ward Cliniques are given at least two days in the week by the Professor, and on other two days in the week the cases of patients attending the out-patient department are specially considered by the Assistant Surgeon, Mr Alexis Thomson, so as to instruct the students in the minor surgical affections. Practical instruction as to the examination of patients, the observation of symptoms, the treatment of surgical emergencies, the use of instruments, the application of dressings, and other surgical details is given by the Clinical Tutor (Dr J. Wheeler Dowden) attached to the Chair, in small classes, free to all Students attending the Course.

Text-Books.—Any of the recent standard works on Surgery. Students are also advised to study some of the best works (old and new) on the special subjects of Practical Surgery.

In connection with this class it is to be noted that under the New Regulations—(1.) Nine months' attendance on Lectures is required, and it is advised that at least six months of this be continuous. (2.) That attendance at the Ward Cliniques is compulsory and forms part of the Course. (3.) Students must produce a certificate that they have acted as Dresser or Clerk in Surgical Wards for six months.

XIV. CLINICAL MEDICINE.

PROFESSORS SIR THOMAS GRAINGER STEWART, FRASER, GREENFIELD, AND (FOR DISEASES OF WOMEN), SIMPSON.

This course, consisting of Clinical Lectures and Instruction in the University wards of the Royal Infirmary, is conducted

conjointly by the Clinical Professors—all being on duty both in the Winter and Summer Sessions, the Professor of Midwifery giving lectures and demonstrations on Gynecology on certain days.

The Course consists of:—1. Practical Instruction on three days a week at the bedside. 2. Critical Expositions and Discussions of cases in the lecture-room on two days a week.

Every facility is afforded to students to act as Clinical Clerks, and those are preferred who have had a course of tutorial instruction. At the close of each Summer Session, six gentlemen, who have been members of the Class, are appointed Resident Physicians in the Clinical Wards for the following Winter and Summer Sessions.

Clinical Tutorial Class.

Practical instruction in the Methods of Physical Examination is given to the Class by the University Clinical Tutors.

Junior Students are strongly advised to take this course of instruction along with their first course of Clinical Medicine.

CLINICAL INSTRUCTION ON DISEASE IN CHILDREN.

JAMES CARMICHAEL, M.D., JOHN PLAYFAIR, M.D., *Lecturers.*

Three Courses, will be conducted annually, two in the Winter, one before, the other after Christmas, and one in the Summer Session.

The instruction is given in the wards of the Royal Hospital for Sick Children. Special attention is directed to Hygiene, Diagnosis, and Treatment during the period of Infancy.

Works of reference.—Keating's "Cyclopædia of the Diseases of Children," Henoch or Eustace Smith on "Disease in Children."

Text-Book.—Carmichael's "Manual of Disease in Children."

Graduation in Medicine and Surgery.

A—REGULATIONS APPLICABLE TO ALL WHO BEGIN MEDICAL STUDIES AFTER 1ST OCTOBER 1892.

For those who began Medical Studies before 1st October 1892, *see Regulations B, page* 373.

I. Four Degrees in Medicine and Surgery are conferred by the University of Edinburgh, viz., Bachelor of Medicine (M.B.), Bachelor of Surgery (Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.). The Degree of Ch.B. is not conferred on any person who does not at the same time obtain the Degree of M.B., and the Degree of M.B. is not conferred on any person who does not at the same time obtain the Degree of Ch.B.

[These Degrees admit to the Medical Register. They qualify for Practice throughout Her Majesty's dominions, and for admission to the Military, Naval, and other Public Medical Services in the United Kingdom.]

II. Subject to Regulations to be made from time to time by the University Court, the University may also confer Diplomas in Special Branches of Medical and Surgical Practice on Graduates of the University in Medicine and Surgery.

PRELIMINARY EXAMINATION.[1]

III. Before commencing medical studies, each student must pass a Preliminary Examination in (1) English, (2) Latin, (3) Elementary Mathematics, and (4) Greek or French or German: Provided always that, in the case of a candidate whose native language is not English, an examination in the native language of the candidate[2] may be substituted for one in either French or German, and an examination in any other classical language[2] for one in Latin or Greek.

IV. The extent and standard of the Preliminary Examination is determined by the Joint Board of Examiners constituted under Ordinance, No. 13 [General, No. 8 Regulations as to Examinations], in accordance with the terms of that Ordinance.

V. The Preliminary Examination is conducted in accordance with the provisions of Ordinance No. 13 [General, No. 8 Regulations as to

[1] See also pages 354 and 477.

[2] Candidates who propose to be examined in a language other than those above-named are required to give intimation thereof before 1st February or 1st July for the Examinations in spring and autumn respectively.

Examinations];—and, subject to the provisions of the immediately succeeding section hereof, a Candidate shall be obliged to pass in all the required subjects at one or not more than two Examinations; provided that he may offer himself for re-examination as often as may be necessary to satisfy this condition.

VI. A Degree in Arts, or in Science (not being a Degree *honoris causa tantum*), in any of the Universities of the United Kingdom, or in any Colonial[1] or Foreign University specially recognised for the purpose by the University Court, exempts from the Preliminary Examination; and the Joint Board of Examiners appointed under the provisions of Ordinance, General, No. 8 [Regulations as to Examinations], has power to determine what examinations, other than those for the degrees hereinbefore mentioned, shall be accepted either in whole or in part in place of the Preliminary Examination.

PROFESSIONAL EDUCATION.[2]

VII. Candidates are admitted to the Degrees of M.B. and Ch.B. only after they have fulfilled the following conditions:—

1. The Candidate must have been engaged in Medical study for at least five years.
2. In each of the first four years the Candidate must have attended at least two courses of instruction, in one or more of the subjects of study specified in sub-section 4 hereof—each Course extending over a session of not less than five months, either continuous or divided into two terms; or, alternatively, one such Course, along with two Courses, each extending over a session of not less than two and a half months.
3. During the fifth or final year the Candidate must be engaged in Clinical study for at least nine months at the Royal Infirmary, Edinburgh, or at one or more of such Public Hospitals or Dispensaries, British or Foreign, as may be recognised for the purpose by the University Court.
4. The Candidate must, during his Curriculum, have attended a Course or Courses of instruction in each of the following subjects of study, including such Examinations as may be prescribed in the various Classes, viz.:—

(1.) ANATOMY, ...	During a Course of not less than Five Months.

[1] University recognised in terms of this section: Princeton, New Jersey, U.S.A.

[2] No Course of Lectures will be allowed to qualify unless the Lecturer certifies that it has embraced at least 100 Lectures, or 50 Lectures, in conformity with the requirements of this section. Three Months' Courses on Materia Medica, Pathology, and Midwifery do not qualify. Apprenticeship, Dispensary or Hospital Practice, Practical Midwifery, and Vaccination, &c., are not reckoned as *Classes* in making up an *Annus Medicus*.

(2.) PRACTICAL ANATOMY, ...	During two Courses of not less than Five Months each.[1]
(3.) CHEMISTRY, ...	During Courses of not less than Five Months.
(4.) MATERIA MEDICA and THERAPEUTICS, .	
(5.) PHYSIOLOGY or INSTITUTES OF MEDICINE,	
(6.) PRACTICE OF MEDICINE, . . .	
(7.) SURGERY, ...	
(8.) MIDWIFERY, and the DISEASES peculiar to WOMEN and INFANTS. Two Courses of Midwifery, of Three Months each, provided different departments of Obstetric Medicine be taught in each of the Courses, are reckoned equivalent to a Course of not less than Five Months, ...	
(9.) PATHOLOGY, ...	
(10.) PRACTICAL CHEMISTRY, . . .	During Courses of not less than Two and a half Months.
(11.) PHYSICS (including the DYNAMICS OF SOLIDS, LIQUIDS, and GASES, and the RUDIMENTS OF SOUND, HEAT, LIGHT, and ELECTRICITY), ...	
(12.) ELEMENTARY BOTANY, ...	
(13.) ELEMENTARY ZOOLOGY, . . .	
(14.) PRACTICAL PHYSIOLOGY, . . .	
(15.) PRACTICAL PATHOLOGY, . . .	
(16.) MEDICAL JURISPRUDENCE and PUBLIC HEALTH, ...	

Provided always in so far as regards the University of Edinburgh that—

(*a*) It is the duty of the Senatus to determine from time to time the number of meetings of which such Courses shall consist, and in what cases two half Courses shall be deemed equivalent to a full Course; and to report the determination to the University Court for its approval.

(*b*) It is the duty of the Professors and Lecturers to submit to the Senatus annually at the end of the Winter Session a scheme specifying what proportion of the Courses shall be devoted to Lectures, Practical Demonstrations, Examinations, and Tutorial Work respectively. The Senatus must transmit such scheme, with such observations as it may think fit to make thereon, to the University Court for its approval.

(*c*) The University Court will not grant or continue recog-

[1] Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the degree of care with which the dissections have been made. Students are recommended not to appear for Examination in Anatomy, with a view to a Degree, until they have dissected the human body at least once.

nition to any institutions or teachers unless it is satisfied that their Courses of Instruction are equivalent to the Courses sanctioned in the Universities of Scotland.

5. The Candidate must have attended for at least three years the Medical and Surgical Practice either of the Royal Infirmary, Edinburgh, or of a General Hospital elsewhere, which accommodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons.
6. The Candidate must have attended Clinical Surgery[1] during a Course or Courses extending over not less than nine months. These Courses may be conducted by the Professor of Clinical Surgery, or by Professors or Lecturers appointed for the purpose by the University Court, or by the Ordinary Surgeons of the Royal Infirmary, Edinburgh, or of a General Hospital defined and recognised as hereinbefore provided, and must consist of regular instruction at the bedside, along with Clinical Lectures.
7. The Candidate must have attended Clinical Medicine[1] during a Course or Courses extending over not less than nine months. These Courses may be conducted by Professors of the University, or by Lecturers appointed for the purpose by the University Court, or by the Ordinary Physicians of the Royal Infirmary, Edinburgh, or of a General Hospital defined and recognised as hereinbefore provided, and must consist of regular instruction at the bedside, along with Clinical Lectures.
8. The Candidate must have attended a course of instruction in Mental Diseases given by the University Lecturer, or by a recognised Teacher, consisting of not less than six Class-room meetings for lectures and demonstrations and ten meetings in the Wards of a recognised Asylum for the Insane.[2]
9. The Candidate must have attended a Course of twenty-five meetings on Practical Pharmacy in a University or recognised School of Medicine, or have dispensed drugs for a period of three months in an Hospital or Dispensary, or the establishment of any chemist and druggist or pharmaceutical chemist of Great Britain, or any pharmaceutical chemist of Ireland, who is registered in the Books of the Pharmaceutical Society of Great Britain or of the Pharmaceutical Society of Ireland respectively.
10. The Candidate must have attended, for at least six months, by apprenticeship or otherwise, the out-practice of an Hospital, or the practice of a Dispensary, or of a Physician or Surgeon, or of a Member of the London or Dublin Society of Apothecaries. He must have acted as Clerk[3] in the Medical and Dresser[3] in the Surgical Wards of a Public Hospital; and he is further required

[1] Only open to Students holding the Hospital Ticket. Certificates of attendance must be countersigned by the Treasurer of the Royal Infirmary.
[2] Must be attended before the Candidate enters for the Final Examination.
[3] Six months. See also footnote 1.

to attend :—*A.* (1) Post-Mortem Examinations[1] in a recognised Hospital for a period of at least three months, during which practical instruction is given in the methods of making Post-Mortem Examinations, and in framing Reports.[2] (2) A course of Clinical instruction in infective Fevers, given at not less than twelve meetings in the Wards of a recognised Hospital where Clinical instruction is given on cases of Infectious Diseases. (3) A course of instruction in Diseases of the Eye, given by the University Lecturer, or by a recognised Teacher, at not less than twelve Class-room meetings and twelve meetings for Clinical instruction in the Wards of a recognised Hospital, or in the Wards of a Hospital, and in a Dispensary, both recognised for the purpose. The Course to include efficient practical instruction in the methods of Examining the Eye.[1 2] (4) A Course of Operative Surgery, conducted by the Professor of Surgery in the University, or by a recognised Teacher. *B.* Every Candidate shall also be required to attend any one of the two following courses :—(1) A course of Clinical instruction in the Diseases of Children, given by the University Lecturers, and by recognised Teachers in the Edinburgh Royal Hospital for Sick Children, or by a recognised Teacher or Teachers in a Hospital recognised for the purpose, which shall extend over a period of at least six weeks, and in addition to the opportunities for Surgical and for other Medical instruction afforded by the Hospital, shall include Clinical instruction in the Medical diseases of children, consisting of not less than four Class-room lectures, ten meetings for Clinical instruction in the Medical Wards, and four meetings in the Out-patient Department of the Hospital,[1 2] together with attendance at Post-Mortem Examinations.[2] (2) A course of instruction in diseases of the Larynx, Ear, and Nose, given by a University Lecturer,[2] or by a recognised Teacher, at not less than six Class-room meetings, and twelve meetings for Clinical instruction in the Wards of a recognised Hospital, or in the Wards of a Hospital and in a Dispensary, both recognised for the purpose.

11. The Candidate must have attended, under the superintendence of a registered Medical Practitioner, twelve cases of labour, or such additional number as the Senatus, with the sanction of the University Court, may from time to time determine; or have attended for three months the practice of a Lying-in Hospital, or of the Maternity Department of a General Hospital or other Public Charitable Institution, and have conducted personally six, or such an additional number of cases of labour as the Senatus, with the approval of the University Court, may from time to time determine.[2]

[1] See footnote 1, page 341.
[2] See footnote 2, page 341.

12. The Candidate must have been properly instructed in Vaccination at a Public Vaccination Station, by a Public Vaccinator, authorised by the proper Government Authority to grant Certificates of Proficiency in Vaccination.[1]
13. No Candidate for a degree will be deemed to have attended a class as part of the Curriculum necessary for that degree who does not present a certificate bearing not only that he has given regular attendance, but also that he has duly performed the work of the class.

VIII. With respect to the Places and Institutions at which the studies of the Candidate may be prosecuted, the following Regulations have effect:—

1. Two of the five years of medical study must be spent in the University of Edinburgh, each year of study including always the attendances specified in section VII., sub-section 2.
2. The remaining three years may be spent in any University of the United Kingdom, or in any Indian, Colonial, or Foreign University recognised for the purpose by the University Court, or in such Medical Schools or under such Teachers as may be recognised for the purpose by the University Court, each year of study during the first four years including always the attendances specified in section VII., sub-section 2.[2]
3. Of the subjects of study specified in section VII., sub-section 4, not less than eight must be taken in the University of Edinburgh, or (subject always to the provisions as to attendance contained in the immediately preceding sub-sections) in some other University of the United Kingdom, or in some Foreign or Colonial University entitled to confer the Degree of Doctor of Medicine, recognised for the purpose by the University Court, or in a College incorporated with, or affiliated to a University, entitled to confer the Degree of Doctor of Medicine, recognised for the purpose by the University Court: Provided always that where in any of said subjects of study two or more Courses are required, the taking of one of those Courses will constitute a taking of the subject for the purpose of this sub-section.

[1] The Candidate must produce a certificate from a Vaccine Department in an Hospital, Dispensary, or other public Institution recognised by the Local Government Board for instruction in Vaccination, to the effect that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the vaccine vesicle, and with the method of preserving lymph, and is thoroughly informed in every necessary part of the subject. The recognised Vaccine Departments in Edinburgh are the Royal Public Dispensary, 21 West Richmond Street—*Vaccinator*, Dr Husband; the Western Dispensary, 90 Fountainbridge—*Vaccinator*, Dr J. B. Buist; and the New Town Dispensary, 17 Thistle Street—*Vaccinator*, Dr Cadell.

[2] Universities, &c., recognised under this sub-section.—University College, Dundee, and Royal Infirmary, Dundee, and all Indian, Colonial, or foreign Universities whose Courses of Instruction were accepted for purposes of graduation in Medicine under the old Ordinances.

4. The remainder of such subjects of study may (subject always as aforesaid) be taken in such Medical Schools or under such Teachers as may be recognised for the purpose by the University Court.
5. All Candidates, not Matriculated Students of the University, availing themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh, must, at the commencement of each year of such attendance, enrol their names in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.
6. The Fee for attendance, for purposes of graduation, on the Courses of instruction of recognised Extra-Academical Teachers in Edinburgh, must be not less than the amount exigible for the corresponding Courses in the University.
   [*The fee must be paid at the commencement of the Course, and the Certificate must state the amount of the fee paid.*]
7. The University Court will not recognise as qualifying for examination in any of the subjects specified in section VII., sub-section 4, the class of any teacher who is at the time a teacher of more than one of the said subjects, except in those cases where Professors in the University are at liberty to teach the two subjects: Provided always that a Professor or other Teacher in any endowed public College or Institution, who, by the terms of his appointment, is required to teach more than one subject of Medical Study therein, may be recognised under sub-section 2 of this section as a Teacher of any one of the subjects which he teaches.
8. A Teacher, attendance on whose course of instruction, before the date of the approval of these Regulations by Her Majesty in Council, had been recognised for the purposes of graduation in the University, is not required to obtain a new recognition from the University Court; and attendance on the course of instruction of every such Teacher may continue to be recognised as heretofore.
9. It is in the power of the University Court, if it sees cause, at any time to withdraw or suspend any recognition which it may have granted.

IX. In the University of Edinburgh it is the duty of the Professors of the subjects specified in section VII., sub-section 4 hereof (except Practical Anatomy and such other subjects as the Senatus, with the approval of the University Court, may from time to time determine), so to conduct the Courses that Students may receive instruction sufficient for graduation in any one of the said subjects by attendance on one Course of five or six months, or of two and a half or three months as the case may be.

X. If any Candidate, before presenting himself for his Prelimi-

nary Examination, has attended in any University of the United Kingdom, or in any University or Institution specially approved, or under any Teacher specially recognised for the purpose by the University Court, a Course or Courses of instruction in Physics, Chemistry, Botany, or Zoology, equivalent in the judgment of the Senatus to the qualifying Course in the same subject in the University of Edinburgh, such attendance will (notwithstanding anything hereinbefore stipulated) be held as entitling him to be examined in these subjects; and if the Candidate has attended such Course or Courses in each of the said subjects, he will be held to have completed his first year of Medical Study: Provided always that the evidence of such attendance at such equivalent Course or Courses must be presented to the Senatus at the time when the Candidate presents himself for his Preliminary Examination; and the Senatus will, if satisfied, grant a certificate to that effect.

By a Supplementary Ordinance of the Commissioners, the provisions of this section shall not have effect except where the University Court shall allow the application after a report by the Senatus, setting forth special grounds therefor.

PROFESSIONAL EXAMINATION FOR M.B. AND Ch.B.

XI. Each Candidate is examined, both in writing and orally, and also clinically where the nature of the subject admits, in the following divisions, viz.:—*First*, in Botany, Zoology, Physics, and Chemistry; *Second*, in Anatomy, Physiology, and Materia Medica and Therapeutics; *Third*, in Pathology, and Medical Jurisprudence and Public Health; *Fourth*, in Surgery and Clinical Surgery, Practice of Medicine and Clinical Medicine, and Midwifery.

In subjects which admit of practical instruction, the examination will be such as to test the practical acquirements of the Candidate.

If a Candidate for the Degrees of M.B. and Ch.B. have completed, in a University of the United Kingdom, a course of study and passed an examination in Botany, Zoology, Physics, or Chemistry qualifying for a Degree in Science or in Arts, he shall be held to have passed the examinations in such subject or subjects.

If a Candidate have obtained a Degree in Science or in Arts in any University other than a University of the United Kingdom, granted in either case after a course of study and an examination in Botany, Zoology, Physics, or Chemistry, it shall be in the power of the University Court to exempt such Candidate from the examinations in such subject or subjects; provided that the course of study and the standard of examination in each case are satisfactory in the judgment of the Senatus Academicus.[1]

XII. Candidates who profess themselves ready to submit to an examination in the subjects comprised in the first division, viz., Botany,

[1] The Courses of study, and the Examinations of the University of New Zealand are recognised.

Zoology, Physics, and Chemistry, may be admitted to examination in all or any two of these subjects at any examination held after they have attended a full Course in each of the subjects professed.

XIII. Candidates who have passed their examinations in the subjects comprised in the first division may be admitted to examination in the second division at the end of the third winter session.

Provided that Candidates who so desire may postpone their examination in Materia Medica and Therapeutics until the close of the summer session following.

XIV. Candidates who have passed their examinations in the subjects comprised in the first and second divisions may be admitted to examination in the third division at the end of the fourth winter session.

Provided that Candidates who so desire may postpone their examination in Medical Jurisprudence and Public Health until the close of the summer session following.

XV. Candidates who have passed their examinations in the subjects comprised in the first, second, and third divisions may be admitted to examination in the fourth or final division, when they have completed the fifth year of study.

XVI. If any Candidate at these examinations be found unqualified in one or more subjects, he will not again be admitted to examination unless he has pursued his medical studies for such time, and subject to such conditions, as the Faculty of Medicine may prescribe.[1]

XVII. If any Candidate at these examinations be found to have passed in one or more subjects with sufficient merit, he will not be liable to re-examination in such subject or subjects, although he may have been found unqualified in a subject or subjects comprised in the same division as hereinbefore specified.

XVIII. Every Candidate must deliver,[2] on or before such day as the Senatus may from time to time determine, to the Dean of the Faculty of Medicine, a declaration, in his own handwriting, that he has completed his twenty-first year, or that he will have completed it on or before the day of graduation, and that he will not be, on the day of graduation, under articles of apprenticeship to any surgeon or other master.

XIX. After the Candidate has satisfied the Examiners, the Dean of the Faculty of Medicine lays the proceedings before the Senatus, by whose authority the Candidate will be admitted, on such day as the Senatus may from time to time appoint, to the Degrees of M.B. and Ch.B., on payment of the required fees.

XX. Candidates for graduation must produce evidence of their

[1] Satisfactory Certificates must be produced when Candidates re-enter for Examination, and the fees paid to Extra-Academical teachers in Edinburgh for re-attendances must be of the same amount as those payable for the corresponding classes in the University, and the Certificates of attendance must show the amount of the fees paid.

[2] On or before the date for lodging Certificates, &c., for the fourth division of the Examinations. See page 362. A declaration is appended to the Schedule for the Final Examination, which must be attested and signed before the Schedule is lodged.

having conformed to the Regulations which were in force at the time they commenced their Medical Studies.

PROFESSIONAL EXAMINATION FOR M.D.[1]

XXI. 1. Subject to the conditions hereinafter specified, the Degree of M.D. is conferred on any Candidate who has obtained the Degrees of M.B. and Ch.B., and is of the age of twenty-four years or upwards, and has produced a certificate of having been engaged, subsequently to having received the Degrees of M.B. and Ch.B., for at least one year in attendance in the Medical Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Military or Naval Medical Services, or for at least two years in Practice other than Practice restricted to Surgery.

2. Each Candidate for the Degree of M.D. is required to pass an examination in Clinical Medicine and in such of its special departments as may from time to time be determined; and he may present himself for examination in Clinical Medicine at any period of examination subsequent to one year after he has received the Degrees of Bachelor of Medicine and Bachelor of Surgery.

This Examination in Clinical Medicine for each Candidate consists of a written Report and Commentary, with any oral questions that may be considered desirable, upon at least three Medical cases. In the selection of the cases, special regard should be given to the opportunities they afford for testing the Candidate, not only in the ordinary methods of clinical investigation, but also in the more advanced methods requiring practical knowledge in the applications of the ophthalmoscope and laryngoscope, in the chemical and microscopical examination of excreta, the quantitative determination and microscopic characters of the chief constituents of blood possessing clinical importance, the recording by instruments of the condition of the circulation, the applications of electricity, &c.: Provided always that one of the three cases on which a Candidate shall be examined may be the case of a patient suffering from a Gynecological or Mental Disease, or Disease of Childhood, if the Candidate on entering his name for the Examination declare a wish to this effect. So far as possible, the Examination in these Departments will be on a standard equal to that of the Examination on the Medical cases.

[1] Candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the Degrees of M.D. and Ch.M., but who cannot appear personally to receive the Degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the Degree conferred on them in absence.

3. Each Candidate for the Degree of M.D. must submit for the approval of the Faculty of Medicine a Thesis, on any branch of knowledge comprised in the second, third, or fourth examinations for the Degrees of M.B. and Ch.B., which he may have made a subject of study after having received those Degrees, excepting subjects which are exclusively Surgical; and the Thesis, accompanied by a declaration signed by the Candidate, that the work has been done and the Thesis composed by himself, must be lodged with the Dean of the Faculty of Medicine on or before a date to be fixed by the Senatus.[1]

4. A Bachelor of Medicine and Bachelor of Surgery, who produces to the Senatus satisfactory evidence of his intention of entering within twelve months after obtaining such degrees on the practice of his profession in a British Possession or Colony, or in a foreign Country, may, under Regulations to be framed by the Senatus, be admitted to the examination in Clinical Medicine at any period of examination after he has received such Degrees; but the Degree of M.D. will not be conferred on him unless he produces a certificate that, subsequently to having received the Degrees of M.B. and Ch.B., he has been engaged for at least one year in attendance in the Medical Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Naval or Military Medical Services, or for at least two years in Practice which has not been exclusively surgical, and unless his Thesis, in the judgment of the Faculty of Medicine, is of exceptional merit.

Bachelors of Medicine and Masters of Surgery of the University of Edinburgh, who have graduated under the regulations in force before 5th August 1892, may proceed to the Degree of Doctor of Medicine under the provisions of this section in the same manner as if they held the Degree of Bachelor of Surgery.

PROFESSIONAL EXAMINATION FOR CH.M.[2]

XXII. 1. Subject to the conditions hereinafter specified the Degree of Ch.M. will be conferred on any Candidate who has obtained the Degrees of M.B. and Ch.B. of the University, and is of the age of twenty-four years or upwards, and has produced a certificate of having been engaged, subsequently to his having received the Degrees of M.B. and Ch.B., for at least one year in attendance in the Surgical Wards of an Hospital, or in

[1] Candidates are required to write their Theses on faint lined paper, 11 in. by 8½ in. with margins 1½ in. at each side. The Thesis is to be written on one side of each leaf only, and it must be lodged on or before 30th April of the year in which the Candidate proposes to graduate.

[2] See footnote 1, page 347.

scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Military or Naval Medical Services, or for at least two years in practice other than practice restricted to Medicine.

2. Each Candidate for the Degree of Ch.M. is required to pass an examination in the following subjects:—Surgical Anatomy, Operations upon the dead body, and Clinical Surgery, and in such of the special departments of Clinical Surgery as may from time to time be determined; and he may present himself for examination in these subjects at any period of examination subsequent to one year after he has received the Degrees of M.B. and Ch.B.

   The Examination in Clinical Surgery for the Degree of Master of Surgery should for each Candidate consist of a written Report and Commentary, with any oral questions that may be considered desirable, on at least three Surgical cases: Provided that one of the three Surgical cases on which a Candidate shall be examined may be the case of a patient suffering from an Eye, Throat, Ear, or Gynecological Disease, if the Candidate on entering his name for the Examination declare a wish to this effect. So far as possible, the Examination in these Departments shall be on a standard equal to that of the Examination on the Surgical cases. The Candidates shall also be examined in Surgical Anatomy and Operations upon the dead body.

3. Each Candidate for the Degree of Ch.M. must submit, for the approval of the Faculty of Medicine, a Thesis on any branch of knowledge comprised in the second, third, or fourth Examinations for the Degrees of M.B. and Ch.B., which he may have made a subject of study after having received those Degrees, excepting subjects that are exclusively medical; and the Thesis, accompanied by a declaration signed by the Candidate that the work has been done and the Thesis composed by himself, must be lodged with the Dean of the Faculty of Medicine on or before a date to be fixed by the Senatus.[1]

4. A Bachelor of Medicine and Bachelor of Surgery who produces to the Senatus satisfactory evidence of his intention of entering within twelve months after obtaining such Degrees on the practice of his profession in a British Possession or Colony, or in a foreign Country, may, under Regulations to be framed by the Senatus, be admitted to examination in the subjects specified in sub-section 2 of this section at any period of examination after he has received such Degrees; but the Degree of Ch.M. shall not be conferred on him unless he produces a certificate that, subsequently to having received the Degrees of M.B. and Ch.B., he has been engaged for at least one year in attendance in the Surgical

[1] See footnotes 1, pages 347 and 348.

Wards of an Hospital, or in scientific work bearing directly on his profession, such as is conducted in the Research Laboratories of the University, or in the Naval or Military Medical Services, or for at least two years in Practice which has not been exclusively medical, and unless his Thesis in the judgment of the Faculty of Medicine is of exceptional merit.

REGULATIONS FOR GRADUATION OF WOMEN.

1. It shall be in the power of the University Court to admit Women to graduation.

2. The conditions for graduation shall be the same for women as for men, subject to the following modifications, which shall have effect until provision is made for the instruction of women in all the subjects qualifying for graduation, in which provision is made for the instruction of men.

3. Section VIII. of Regulations for Degrees in Medicine shall not be applicable to the graduation of women in Medicine.

So long as within the Faculty provision is not made for the instruction of women in any subject qualifying for graduation in which provision is made for the instruction of men, it shall be in the power of the University Court to admit to graduation women who have received the requisite instruction in that subject in any University of the United Kingdom, or in any Indian, Colonial, or Foreign University recognised for the purpose by the University Court, or in such Medical Schools or under such teachers as may be recognised for the purpose by the University Court: Provided always that every Candidate for graduation shall produce evidence of having satisfied the conditions laid down in the Regulations for Degrees in Medicine with respect to the Preliminary Examination, and shall be examined in all the subjects necessary for graduation by the Examiners of the University.

4. So soon as within the University provision is made for the instruction of women in all subjects qualifying for graduation in which provision is made for the instruction of men, the conditions for the graduation of women shall be the same as the conditions for the graduation of men.

5. In the case of women who began their studies before these Regulations came into operation, it shall be competent to the University Court to admit to graduation in Medicine women who may complete their medical studies in accordance either with the Regulations for graduation hitherto in force, or with the present Regulations; declaring that as regards their studies prior to the date at which these Regulations came into operation (1st October 1892), such women may have obtained their instruction in any classes which the University Court may accept for the purpose, and providing that before beginning their medical studies they shall have passed a Preliminary Examination which the University Court shall consider to have been adequate.

6. Women who attend classes in the University must matriculate, pay-

ing a fee of the same amount as that exigible for other students. Women, who are Candidates for graduation but not matriculated students, and who may attend classes in Edinburgh under the provisions above set forth, must, at the commencement of each year of such attendance, enrol their names in a book to be kept in the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by students of the University.

Additional Regulations of the University Court.

When granting recognition to Medical Schools or Teachers for the medical instruction of women, the University Court requires that the classes shall not be mixed classes, except on special cause shown.

The University Court have recognised the Edinburgh School of Medicine for Women, Surgeon Square, Edinburgh, and the Medical College for Women, 30 Chambers Street, Edinburgh, as Medical Schools whose courses of instruction qualify for graduation in Medicine, subject to the following conditions: Provided 1. That every Candidate for graduation shall produce evidence of having satisfied the conditions with respect to the Preliminary Examination and Registration as Medical Students, and shall be examined in all the subjects necessary for graduation by the Examiners of the University in which she takes her degree. 2. That the fees charged for classes or courses of instruction qualifying for graduation shall not be less than the fees for the corresponding courses of instruction within the University. 3. That the students attending either of these Schools shall be free to take a class or classes separately in either the one or the other of the Schools. 4. That all students not matriculated students of the University attending these Schools for purposes of graduation must, at the commencement of each year of such attendance, enter their names in a book to be kept in the University for that purpose, paying a fee of the same amount as the matriculation fee paid by students of the University, and having, in respect of such payment, a right to the use of the Library of the University. 5. That each of the aforesaid Schools make application annually to the University Court for a continuation of the recognition thus granted, and at the same time report to the Court on the administrative arrangements and discipline of the School. 6. That schedules of Class Returns, to be furnished by the Court, and giving the designation of the class or course, number of students, number of meetings, &c., be filled up by each of the teachers of the qualifying classes or courses of instruction in the aforesaid Schools, as in the case of the recognised Lecturers on Medicine, and forwarded to the Secretary of the Court not later than 1st July in each year. 7. That all advertisements referring to the recognition of the aforesaid Schools, or to the qualifying classes or courses of instruction to be given at any time in connection with these Schools, shall, before publication, be submitted to the Secretary of Senatus of the University, and receive his approval.

Regulations for Special Study and Research, and for the Appointment of Research Fellows.

I. The Senatus Academicus, with the approval of the University Court, may make regulations under which Graduates of Scottish Universities or of other Universities recognised by the University Court for the purposes hereof, or other persons who have given satisfactory proof of general education and of fitness to engage in some special study or research, may be admitted to prosecute such study or research in the University.

II. It is the duty of the Senatus (1) To receive and decide upon all applications for admission to prosecute special study or research. (2) To prepare a list of all persons so admitted (hereinafter referred to as Research Students). (3) To make regulations for the supervision of their work. (4) To satisfy themselves from time to time that the Research Students are carrying on their work in the University in a satisfactory manner. (5) To suspend or exclude from any course any student whose conduct or progress is unsatisfactory.

III. Every applicant for admission must send in to the Senatus a written application stating any degree or other distinction which he has already obtained, the line of study or research which he wishes to prosecute and the probable period of its duration, together with evidence as to his character, capacity, and general qualifications.

IV. Any application for admission shall be in the first instance referred by the Senatus to the appropriate Faculty, or to a Committee appointed by the Senatus; one member of the Committee shall always be a Professor or Lecturer within whose department the proposed line of study or research falls. No applicant shall be recommended by the Faculty or the Committee who has not satisfied them by examination or otherwise that he is qualified to prosecute the proposed line of study or research, and further—

(*a*) That his proposed line of study or research is a fit and proper one; (*b*) That he possesses a good general education; (*c*) That he is of good character; (*d*) That he proposes to prosecute his studies or research during a period to be approved by the Senatus Academicus.

The Faculty or the Committee shall make a report to the Senatus upon each application. It shall also be their duty, subject to the regulations of the Senatus, to provide for the supervision of the Research Student's work, and to report at least once a year to the Senatus as to his progress and conduct. The Senatus shall then determine whether he shall remain a Research Student.

V. Every Research Student shall be required to matriculate each year, paying the ordinary fee.

VI. Research Students shall have access to and the use of the University Laboratories and Museums, under such conditions as to payment and otherwise as the University Court, after consultation with the Senatus, may determine.

VII. The title of Research Fellow may be conferred by the Senatus, with the approval of the University Court, on Research Students who have shown special distinction. Such title shall not of itself confer any right to stipend, but it shall be in the power of the University Court to provide a stipend of such amount and for such period as it may think fit to any Research Fellow under the powers of Section XI., Sub-section 8, of Ordinance 27.

VIII. (1) The Research Fellows shall be appointed as aforesaid after consideration of the report or reports submitted in terms of Section IV. hereof. (2) The title of Research Fellow may be conferred either at the commencement of the Research Student's course of study or research, or at any time during its progress, as the Senatus Academicus may determine. (3) Research Fellows shall retain their title and stipend, if any, for the period during which they are engaged in special study or research in the University, and no longer. (4) Research Students who have been appointed Research Fellows shall continue to be subject to the conditions above prescribed as to the supervision of their work and the reports to be made thereon.

IX. Nothing herein contained shall prejudice the right of Research Students to such Fellowships, Scholarships, or Prizes as may be open to them by Ordinance or Deed of Foundation.

X. The University Court may, subject to the provisions of Section XI., Sub-section 8, of Ordinance No. 27, Edinburgh No. 6, provide such sums as it may think fit in aid of the expenses of Special Study or Research.

Regulations for the Degree of D.Sc.

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I. Research Students within the meaning of the Regulations for the Encouragement of Special Study and Research and for the appointment of Research Fellows, may offer themselves for the degree of D.Sc. of the University in which they have prosecuted some special study or research under those Regulations, although they have not taken the degree of B.Sc. or the degree of M.A. with honours in that University; provided—

(1) That they hold the degree of B.Sc. or M.B. of a Scottish or any recognised University, or a degree of any such University, which the Senatus shall hold to be equivalent to the degree of B.Sc. or to the degree of M.A. with first or second class honours in Mathematics and Natural Philosophy; provided that Candidates who hold any such degree from a University outside the United Kingdom may be required, if the Senatus think fit, before beginning their course as Research Students with a view to the degree of D.Sc., to pass an examination equivalent to an Honours or to a Final

Science examination in a group of subjects cognate to their line of work as Research Students.

(2) That they have spent not less than two winter sessions or an equivalent period as Research Students in the University granting the degree, and that they produce evidence of satisfactory progress in the special study or research undertaken by them during that period.

(3) That a period of not less than five years shall have elapsed from the date of the graduation required in sub-section (1) of this section.

II. All Candidates for the degree of D.Sc. shall present a thesis or a published memoir or work, to be approved by the Senatus on the recommendation of the Faculty of Science; provided that, if required by the Senatus, the Candidate shall also be bound to pass such an examination conducted orally or practically, or by written papers, or by all of these methods, on the subjects of his special study or of his thesis, as may from time to time be determined. The thesis shall be a record of original research undertaken by the Candidate, and shall be accompanied by a declaration signed by him that the work has been done and the thesis composed by himself. [The Thesis must be lodged and the fees paid on or before 20th January of the year in which the Candidate proposes to graduate.]

III. Notwithstanding and in supplement of the provisions of Regulations as to Examinations, sections XIV. and XV., the Senatus shall appoint such Professors or Lecturers as it may think suitable to conduct the examination of Candidates who may offer themselves under the provisions of the Regulations for Degrees in Science, or of these Regulations for the Degree of D.Sc., and the University Court shall, after consultation with the Senatus Academicus, appoint an additional Examiner to act along with them. Such additional Examiner shall be a person of recognised eminence in the subject of the thesis, or memoir, or work which is to be submitted for approval. The result of the examination shall be reported to the appropriate Faculty or Committee of Senatus.

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V. The degree of D.Sc. shall in no case be conferred on persons who have not satisfied the conditions hereinbefore set forth, and shall not be conferred *honoris causa tantum*.

VI. The fee for the Examination for the Degree of D.Sc. is ten guineas, payable when the Candidate lodges his thesis. Fee for re-examination, £5, 5s.

REGULATIONS FOR THE PRELIMINARY EXAMINATION FOR DEGREES IN MEDICINE AND SURGERY, SUPPLEMENTARY TO SECTIONS III.-VI. INCLUSIVELY, PAGES 338 AND 339 HEREOF, ABRIDGED FROM THE REGULATIONS OF THE JOINT BOARD.[1]

The papers set in English shall no longer be of the same character as the paper on English in the Arts and Science Examination; no set books shall be prescribed, nor shall a general knowledge of the life and works of the greater authors be expected of Candidates, but one or two questions may be set, giving an opportunity to Candidates to show a knowledge of famous literary works. The historical questions shall not be confined to any one period, but shall cover the whole of British History, and shall be set in such a way as to give an opportunity to Candidates who have confined their studies to a single period to show their knowledge. A single three hours' paper shall be set, containing an Essay, a Paraphrase, two questions on History, two on Geography, four on Grammar (including Correction of Sentences, Parsing, Analysis of Sentences, and Derivations), two of a literary and general kind. Eight answers shall be required. The Essay, the Paraphrase, one answer on History, and one on Geography shall be compulsory.

The papers set in Latin, Greek, and Mathematics, shall be the same as those set on the Lower Standard in these subjects in the Arts and Science Preliminary Examination.

These are defined in the Regulations relating to the Arts and Science Preliminary, as follows :—

The *Latin* Examination on the Lower Standard will be—Translation and Parsing, Prose Composition, Grammar, and Sentences.

The *Greek* Examination on the Lower Standard will be—Translation, Sentences, and Grammar.

Candidates are required to satisfy the Examiners both in composition and in translation.

Mathematics on the Lower Standard shall comprise :—

(1) Arithmetic, including Vulgar and Decimal Fractions, Proportion, Percentage, Square Root, Simple Interest.

(2) Algebra, including Fractions, Factors, Square Root, Equations of the First Degree, Simultaneous Equations of the First Degree, Easy Quadratic Equations, Problems leading to the above Equations.

(3) Geometry—Euclid, Books I., II., and III. (or their equivalents), with Easy Deductions. Demonstrations other than Euclid's will be accepted if they assume no propositions which in Euclid's order are subsequent to the proposition under consideration.

[1] See Examinations accepted as exempting, pages 357 and 477.

The paper in Mathematics will be devoted to the various subjects comprised in as nearly as possible the following proportions: four-ninths to *Geometry*, three-ninths to Algebra, and two-ninths to Arithmetic.

Candidates may obtain full marks by doing correctly about two-thirds of the questions set in each subject; but the Examiners will be entitled to reject a Candidate who makes in any subject less than a certain minimum of the marks allotted to that subject.

French and *German*. One paper shall be set in French and one in German. The papers shall be on a somewhat lower standard than the papers set in these subjects in the Arts and Science Preliminary. The time allowed for each paper will be three hours. The papers will comprise questions in Grammar, translations, a piece of English for translation, and some short sentences.

It shall be in the option of any Candidate for the Medical Preliminary to take the papers set on the Higher Standard for the Arts Preliminary in any of the subjects. (See Arts Regulations.)

Excellence in one or more subjects will be permitted to compensate in some measure for deficiency in any of the other subjects. Such excellence may be shown either by attaining a high percentage of marks on the Lower Standard, or by passing on the Higher Standard.

Candidates who, having taken English, Latin, Greek, Mathematics, or a Modern Language, on the Higher Standard, as prescribed by the Regulations for the Arts and Science Preliminary, have obtained a satisfactory percentage of marks, shall be held to have passed the Medical Preliminary in these subjects, provided that all the subjects required by the Regulations of the University for Graduation in Medicine and Surgery, Sections III.-VI. inclusively, and by the Regulations of the General Medical Council shall be passed at one or at not more than two Examinations, and the Candidate may offer himself for re-examination as often as may be necessary to satisfy this condition.

Examinations Accepted as Exempting from the Preliminary Examination in Medicine.

Provided always that the Regulations of the General Medical Council regarding the Registration of Students of Medicine be complied with.

1. In terms of the Regulations for Degrees in Medicine and Surgery, "a Degree in Arts or in Science (not being a Degree *honoris causa tantum*) in any of the Universities of the United Kingdom, or in any Colonial or Foreign University, specially recognised for the purpose by the University Court, shall exempt from the Preliminary Examination."

In virtue of the powers conferred on them by the Medical Regulations, Section VI., page 339, the Joint-Board have resolved as follows:—

2. Any Candidate who produces a Certificate of having passed the Preliminary Examination in Arts or Science in any Scottish University, either at the University Examination or through the Leaving Certificates of the Scotch Education Department, or partly at the University Examination, and partly through the Leaving Certificates, shall be held to have passed the Preliminary Examination for Medicine, provided that the Examination has included the specified subjects of General Education as required under the Regulations of the General Medical Council, and by the Regulations for Graduation in Medicine and Surgery (Sections III.-VI. inclusive, pages 338 and 339).

3. A Candidate who has passed the Arts and Science Preliminary Examination of the Joint Board in any subject (Higher Grade where there is more than one) recognised for the Medical Preliminary Examination, shall be exempted from further examination in that subject in the aforesaid Preliminary Examination.

4. A Candidate who has obtained the Leaving Certificate (Honours or Higher Grade) of the Scotch Education Department in any subject recognised for the Medical Preliminary Examination, shall be exempted from further examination in that subject in the aforesaid Preliminary Examination.

The Regulation that all the subjects of the Examination shall be passed at one and the same time[1] shall not be held to apply to either of the above cases, 2, 3, and 4. But Candidates complying with these Rules (2, 3, and 4) must obtain a University Certificate specifying the Examinations passed by them which have been accepted as equivalents to the Preliminary, and must present said Certificate to the Medical Registrar in order to registration.

Further, each such Candidate when applying for said Certificate must, if he has not entered for any part of the Preliminary, produce a Matriculation Card from some one of the Scottish Universities.

5. Lower Grade Leaving Certificates of the Scotch Education Department will only be accepted as exempting from the Medical Preliminary Examination, provided the examinations in all the requisite subjects have been taken and passed at one and the same time.[1]

6. The following English and Irish University Examinations will be accepted (provided they include all the subjects required under the Regulations of the General Medical Council, and prescribed by the Medical Ordinances of the Scottish Universities Commissioners, see Sections III.-VI. inclusive of Regulations for Graduation in Medicine and Surgery, pages 338 and 339), viz. :—

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[1] In and after October 1897, candidates will be required to pass in all the required subjects at one or at not more than two Examinations. See Section V. of Regulations, page 338.

Oxford.—Responsions, provided the Candidate pass the Examination of the Joint Board in English ; Moderations.

Cambridge.—Previous Examination, provided that Candidates who have passed it prior to Michaelmas 1896 shall pass the Examination of the Joint Board in English. After Michaelmas 1896 the Previous Examination will be accepted as exempting *in toto.*

Oxford.—Senior Local Examinations will be accepted *pro tanto*, provided that, as regards English, the Certificates shall bear that the Candidate has passed in Division 1 of the subject, and in either Division 3, 4, or 5.

Oxford.—Higher Examination for Women will be accepted *pro tanto.*

Cambridge.—Senior Local Examinations will be accepted *pro tanto.*

Cambridge.—Higher Local Examinations will be accepted *pro tanto.*

Oxford and Cambridge Schools Examinations.—Higher Certificate will be accepted *pro tanto*, provided that, as regards Mathematics, the Certificate shall bear that the Candidate has passed in both Elementary and Additional Mathematics ; the Lower Certificate will be accepted *pro tanto* only till October 1897 inclusive.

London University.—Matriculation Examination.

Dublin, Trinity College.—Public Entrance Examination.

Royal University of Ireland.—Matriculation Examination.

Victoria University.—Preliminary Examination ; Entrance Examination in Arts.

By *pro tanto* is here meant that a certificate of having passed in the Examination referred to in any subject required for the Medical Preliminary Examination, shall, as regards that subject, exempt from further Examination in the said Preliminary Examination.

7. The Examinations of the following Indian, Colonial, and Foreign Universities and Colleges, will be accepted (provided the Examinations include all the subjects required by the General Medical Council, and prescribed by the Medical Ordinances of the Scottish University Commissioners—see Sections III.-VI. inclusive of Regulations for Graduation in Medicine and Surgery, pages 338 and 359), viz. :—

Universities of (1) *Calcutta*, (2) *Madras*, and (3) *Bombay.*—Entrance Examination.

Universities of (1) *Cape of Good Hope.*—Matriculation Examination ; (2) *Tasmania*—Matriculation Examination ; (3) *New Zealand*—Matriculation and Medical Preliminary Examination ; (4) *Melbourne*—Matriculation Examination ; (5) *Sydney*—Matriculation Examination ; (6) *Adelaide*—Matriculation Examination ; or its substitute, the Senior or Junior Public Examination.

The Provincial Education Department of Ontario.—Departmental Pass Arts Matriculation Examination.

Trinity University, Toronto.—Matriculation Examination.

The University of Toronto.—Senior or Junior Matriculation Examination.

Queen's College and University, Kingston.—Matriculation Examination.

M'Gill University.—Matriculation Examination.

King's College, Windsor, Nova Scotia.—Responsions.

Dalhousie College Halifax.—Matriculation Examination.

Mount Allison College, Sackville, New Brunswick.—Matriculation Examination.

The University of Winnipeg.—Preliminary Examination in Arts.

Victoria College, Upper Canada.—Matriculation Examination.

The University of Halifax, Nova Scotia.—Matriculation Examination.

The University of Fredericton, New Brunswick.—Matriculation Examination.

The Western University of Ontario.—Matriculation Examination.

University of Manitoba.—Previous Examination.

Codrington College (Barbados).—English Certificate for Students of two years' standing, and Latin Certificate, or "Testamur."

Germany and other Continental Countries.—Gymnasial Abiturienten-Examen, and corresponding Entrance Examinations to the Universities.

8. In the case of Candidates for the Medical Preliminary Examination, who hold qualifications from Foreign or Colonial Bodies, other than Universities, whose certificates are not included in the list of Equivalent Examinations issued by the Joint Board, a Committee in each University, consisting of the Deans of the Faculties of Arts, Science, and Medicine, is empowered to accept such certificates, if it deems them sufficient, provided that all such cases are reported to the Joint Board at their meeting next following.

DATES OF ENTERING FOR PRELIMINARY EXAMINATION AND FOR PAYMENT OF FEES.

Each Candidate is required to pay a fee of 10s. 6d. for each appearance at the Preliminary Examination.

Candidates for Examination may obtain Schedules at the Matriculation Office, University (Old) Buildings, on and after 5th September 1897, and on and after 15th February 1898. The Schedules must be completed and returned along with the fees not later than 18th September 1897 and 1st March 1898 for the autumn and spring Examinations respectively.

Candidates may pay the fees personally or transmit them to T. Gilbert, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts* crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, and not by cheques on

private accounts. When names are not entered and Fees paid on or before the stated dates, an additional or late entry fee of 10s. must be paid before the Candidate can be admitted to Examination. A Candidate is not held to have entered until his Schedule is lodged, the Fee paid, and a Pass to the Examination obtained.

TIME-TABLE FOR PRELIMINARY EXAMINATIONS FOR 1897-98.

		Medical Preliminary Examinations.	Arts and Science Preliminary Examinations.
1897.			
Sept. 25	Sat.	English, 9-12 Greek, 3-6 Do., 3-5[1]	English, 9-11, 12-2 Lower Greek, 3-6
,, 27	Mon.	Latin, 9-12 Mathematics, 2-5	Lower Latin, 9-12 Lower Mathematics, 2-5
,, 28	Tu.	French, 3-6 Do., 3-5[1]	Higher Latin, 9-11, 12-2 French, 1st paper, 3-4.30
,, 29	Wed.	German, 3-6 Do., 3-5[1]	Higher Greek, 9-11, 12-2 German, 1st paper, 3-4.30
,, 30	Th.	Higher Mathematics,[1] 9-11, 12-2.	Intermediate and Higher Mathematics, 9-11, 12-2 French, 2nd paper, 3-5
Oct. 1	Fri.	Moral Philosophy, 9-11[1] Mechanics, 1-4[1]	German, 2nd paper, 9-11 Dynamics, 1-4
,, 2	Sat.	Natural Philosophy, 9-11[1] Logic, 2-4[1]	
1898.			
Mar. 26	Sat.	English, 9-12 Greek, 3-6 Do., 3-5[1]	English, 9-11, 12-2 Lower Greek, 3-6
,, 28	Mon.	Latin, 9-12 Mathematics, 2-5	Lower Latin, 9-12 Lower Mathematics, 2-5
,, 29	Tu.	French, 3-6 Do., 3-5[1]	Higher Latin, 9-11, 12-2 French, 1st paper, 3-4.30
,, 30	Wed.	German, 3-6 Do., 3-5[1]	Higher Greek, 9-11, 12-2 German, 1st paper, 3-4.30
,, 31	Th.	Higher Mathematics,[1] 9-11, 12-2	Intermediate and Higher Mathematics, 9-11, 2-2 French, 2nd paper, 3-5
Apr. 1	Fri.	Moral Philosophy, 9-11[1] Mechanics, 1-4[1]	German, 2nd paper, 9-11 Dynamics, 1-4
,, 2	Sat.	Natural Philosophy, 9-11[1] Logic, 2-4[1]	

[1] For Students completing the Examination under the Old Regulations.

REGULATIONS AS TO CLASS EXAMINATIONS.

With a view to promote the Educational interests of the students during the time they are occupied with the respective subjects in the Classes, the Senatus recommend :—

1. That there should be at least two Special Class-Examinations in the Classes in the Faculty of Medicine during each Session, conducted by means of questions and written answers, without aid from books or notes.

2. That in the event of a student gaining 75 per cent. or more of the available marks in any department, he shall obtain a Certificate in the First Class of Honours.

3. That in the event of a student gaining 50 per cent. or more, but less than 75 per cent., of the available marks in any department, he shall receive a Certificate in the Second Class of Honours.

University Bronze Medals are also given for Competitive Class Examinations.

CERTIFICATES OF ATTENDANCE ON CLASSES IN THE FACULTY OF MEDICINE.

The Senatus Academicus have resolved that the Certificates of Attendance to be granted to students in the Faculty of Medicine shall be regulated in the following manner :—

Each Professor shall ascertain the presence of his pupils at least twenty-six times in a Course of six months' duration, and thirteen times in a Course of three months' duration.

Those who have been absent twelve or more times in a six months' Course, or six or more times in a three months' Course, or have not duly performed the work of the Class, including any Examinations that may be held, shall not be entitled to any Certificate.

The following is the form of Certificate which must be adopted in all cases :—

"I certify that Mr attended my Course of Instruction on during the Session ; that he was present on of the occasions on which attendance was ascertained ; and that he duly performed the work of the class."

Exceptions will be admitted in the case of those who may be absent from sickness or other unavoidable causes, the particulars of which must be stated to the Professor in writing, accompanied with certificates. All excuses for non-attendance must be given in immediately upon the student returning to his class. But if any student shall have been absent for six weeks or upwards, in a Course of six months, or for three weeks in a Course of three months (whatever the cause of absence may be), his case must be transmitted to the Dean of the Faculty for the decision of the Faculty.

Whenever the student's cause for absence shall be admitted by the Professor or by the Faculty, the Certificate shall bear that he "attended," and shall state the amount of the irregularity and the nature of the excuse.

FIRST PROFESSIONAL EXAMINATION.

The Faculty of Medicine have resolved that the written and oral examinations on Chemistry, Elementary Botany, Elementary Zoology, and Physics shall be restricted in the following manner :—

1. *Chemistry.*—Chemical changes as distinguished from physical changes. Elements ; compounds ; mixtures. Laws of chemical combination by weight and by volume. The atomic theory. Atoms ; molecules. Avogadro's Hypothesis. Molecular weights of gaseous and volatile substances. Atomic weights. Law of Dulong and Petit. Chemical Notation—Symbols ; formulæ ; equations. Simple chemical calculations.

The non-metallic elements and their chief compounds ; especially the compounds of oxygen, of hydrogen, and of chlorine with the other non-metals. The more important inorganic acids. The atmosphere. Combustion. Oxidation and reduction.

The following metallic elements and their chief compounds ; especially those with oxygen, with chlorine, and with sulphur : Gold, platinum, silver, mercury, lead, antimony, tin, copper, bismuth, zinc, iron, aluminium, chromium, manganese, barium, strontium, calcium, magnesium, potassium, sodium.

The following salts : the ammonium salts ; the more important sulphates, sulphites, thiosulphates, nitrates, nitrites, carbonates, bromides, iodides, iodates, phosphates, borates, silicates.

The relations of bases, acids, and salts. Electrolysis. Quantivalence. The periodic law.

The metallurgy of silver, mercury, copper, lead, tin, zinc, iron (including cast-iron and steel). Alloys, such as brass, bronze, solder, type-metal. Amalgams.

The manufacture of aluminium, magnesium, potassium, sodium, glass, porcelain, mortar, gunpowder, sulphuric acid, sodium carbonate and bicarbonate, caustic soda, bleaching powder and chlorates, white lead.

Classification of Carbon Compounds. Marsh Gas and its Homologues. Chloroform. Methyl and Ethyl Alcohols and Ethers. Substituted ammonias and ammonium salts. Formic and Acetic Acids, Aldehyde, Acetone, Chloral, Olefiant Gas, Oxalic Acid, Lactic Acid. Tartaric Acid, Citric Acid. Fats and Oils, Saponification, Glycerine. Cellulose, Sugars, Starch. Distillation of Wood and of Coal. Benzene, Benzoic Acid, Phenol, Salicylic Acid, Oil of Bitter Almonds. Hydrocyanic Acid, Cyanides, Cyanates, Thiocyanates, Urea, Uric Acid.

Simple Qualitative Analysis. The examination in this is conducted practically. Candidates are required to examine unknown *single salts* for both metallic and salt radicals, as contained in the following lists:—

Silver, Mercurous, Mercuric, Cupric, Lead, Stannous, Stannic, Bismuth, Antimony (*Tartar Emetic* may be given), Arsenious, Zinc, Manganous, Ferrous, Ferric, Chromic, Aluminium, Calcium, Barium, Strontium, Magnesium, Ammonium, Sodium, Potassium.

Carbonate, Sulphite, Thiosulphate, Sulphide, Hypochlorite (Bleaching solution), Nitrite, Chloride, Bromide, Iodide, Cyanide, Sulphate, Chromate, Orthophosphate, Arseniate, Arsenite, Borate, Oxalate, Nitrate, Chlorate, Acetate.

At the examination, Candidates are supplied with the following reagents, &c.:—Acetic Acid, dilute Hydrochloric Acid, dilute Nitric Acid, Sulphuric Acid, dilute Sulphuric Acid, Alcohol, Iodine, Ammonia, Ammonium Carbonate, Ammonium Chloride, Ammonium Oxalate, Ammonium Sulphide, Barium Nitrate, Bleaching Powder, Calcium Chloride, Calcium Hydrate, Calcium Sulphate, Cobaltous Nitrate, Cupric Sulphate, Ferric Chloride, Ferrous Sulphate, Lead Acetate, Magnesium Sulphate, Mercuric Chloride, Potassium Carbonate, Potassium Chromate, Potassium Ferricyanide, Potassium Ferrocyanide, Potassium Hydrate, Potassium Iodide, Silver Nitrate, Sodium Bitartrate, Sodium Phosphate, Sodium Sulphite, Stannous Chloride, Sulphuretted Hydrogen. *Solids*—Manganese Dioxide, Sodium Carbonate, Borax, Sulphur, Zinc, Copper.

Test papers:—Blue Litmus, Red Litmus, Plain, Starch, Turmeric.

Bunsen Burner, Test Tubes.

2. *Elementary Botany.*—The characteristic features of the following groups and classes of the vegetable kingdom:—

Thallophyta [Schizophyta, Algæ, Fungi]; Muscineæ [Hepaticæ, Musci]; Pteridophyta [Filicineæ, Equisetineæ, Lycopodineæ]; Phanerogamæ [Gymnospermæ, Angiospermæ (Monocotyledones, Dicotyledones)].

The fundamental facts and principles of Morphology (including Anatomy, Histology, and Development) and Physiology. The life-history of the following plants:—Bacterium, Saccharomyces, Mucor, Vaucheria, Eurotium, Funaria, Aspidium, Pinus, Scilla, Helianthus, Ulmus; and the characters of plants belonging to the following natural orders of Phanerogamæ:—Coniferæ, Gramineæ, Orchideæ, Liliaceæ, Urticaceæ, Labiatæ, Compositæ, Umbelliferæ, Rosaceæ, Leguminosæ, Cruciferæ, Ranunculaceæ.

3. *Elementary Zoology.*—(*a*) The General Principles of Biology.

(*b*) The distinctive characters of the Invertebrate groups, and the structure, habits, &c., of Amœba, Paramœcium, Hydra, Arenicola, Hirudo, Anodon, Helix, Nephrops, and Periplaneta.

(*c*) The distinctive characters of the Chordata groups, and the structure, habits, &c., of Myxine, Raia, Rana, Columba, Ornithorhynchus, Macropus, Lepus, Ovis, and Canis.

(*d*) The skeletons of Crocodilus, Equus, Felis (skull only), Balæna, Vespertilio, and Troglodytes.

(*e*) A general knowledge of the orders of Mammalia.

(*f*) The life-histories of Gregarina, Distoma, Tænia, Ascaris, Trichina, and Filaria.

(*g*) The outlines of the development of Amphioxus, Scyllium, and Rana, and of the fœtal appendages of Gallus and Lepus.

(*h*) The principles of the Geographical Distribution of Animals, and the Distribution of the Mammalia.

4. *Physics.*—(*a*) Properties of Matter—including Inertia, Gravitation, Molecular Forces, &c.

(*b*) Abstract Dynamics—including Kinematics and Newton's Laws of Motion, with their consequences as regards Statics and Kinetics of Solid, Liquid, and Gaseous Bodies, with the Physical Measurement of Time.

(*c*) Sound and Wave-propagation in general, Intensity, Pitch and Quality of Musical Sounds, Harmonics, Concords, &c.

(*d*) Heat, its Nature, Effects, Measurement, Transference and Transformations—Measurement of Temperature and of absolute Temperature, Thermodynamics.

(*e*) Light (1), Geometrical Optics, Speed of Light, Laws of Reflection and Refraction, Construction and Effects of Mirrors, Prisms, Lenses, and Microscopes, Images, Conditions of Distinct Vision. (2) Physical Optics—Interference, Dispersion, Diffraction, Double Refraction, Polarisation, Spectrum Analysis.

(*f*) Electricity, including Frictional and Voltaic Electricity, Thermo- and Magneto-Electricity, Electro-Dynamics and Magnetism, with their practical applications. Measurements of Potential, Electromotive Force, Current, &c., Batteries, Dynamos, Electrometers, Galvanometers, Voltameters, &c.

HONOURS AT PROFESSIONAL EXAMINATIONS.

Candidates who have displayed special merit at any of the Professional Examinations will be announced as having passed that Examination "with distinction."

Candidates who have displayed special merit at each of the Professional Examinations will be announced, at the time of the Graduation, as having obtained FIRST or SECOND CLASS HONOURS, according to the merit that has been displayed.

SPONSIO ACADEMICA FOR GRADUATES IN MEDICINE.

Ego Doctoratus in Arte Medica titulo jam donandus, sancte coram Deo cordium scrutatore, spondeo, me in omni grati animi officio erga Universitatem Academicam Edinburgensem ad extremum vitæ halitum perseveraturum.

Tum porro Artem Medicam caute, caste, probeque exercitaturum, et

quoad potero, omnia ad ægrotorum corporum salutem conducentia cum fide procuraturum. Quæ, denique, inter medendum visa vel audita sileri conveniat, non sine gravi causa vulgaturum.

Ita præsens spondenti adsit Numen.

FEES FOR EXAMINATIONS.

FEES FOR M.B. AND CH.B.

Fee for the First Division of the Examination, viz., Botany, Zoology, Physics, and Chemistry . .		£6	6 0
or			
For any two of the subjects . .	£3 3 0		
For the other two subjects . .	3 3 0		
For the Second Division, viz., Anatomy, Physiology, and Materia Medica and Therapeutics . . .		6	6 0
or			
For Anatomy and Physiology . .	£4 4 0		
For Materia Medica and Therapeutics	2 2 0		
For the Third Division, viz., Pathology, and Medical Jurisprudence and Public Health		4	4 0
For the Final Division, viz., Surgery and Clinical Surgery, Medicine and Clinical Medicine, and Midwifery		6	6 0
		£23	2 0

Any Candidate who fails to pass in one or more of the subjects, pays £1, 1s. for re-examination in each subject.

Candidates who, under the proviso in Section XI. of the Regulations, are exempted from the first division of the Examination, are required, after passing the final division of the Examination, to pay a fee of £6, 6s. before they can be admitted to the Degrees of M.B. and Ch.B.

Fee for M.D.	£10 10 0
Fee for Ch.M.	£10 10 0
Fee for D.Sc.	£10 10 0

Any Candidate who fails to pass the Examinations for the Degree of M.D. or for the Degree of Ch.M., or for the Degree of D.Sc., is required to pay a Fee of £5, 5s. for each re-appearance.

Every Candidate for Examination or Graduation must be a Matriculated Student of the year in which he appears for Examination or Graduation. He is also required to pay the fee of £1 for Registration as a Member of the General Council, if not already a Member.

N.B.—The above Fees include all charges for the Diplomas, and Graduates are requested to apply personally for their Diplomas at the Matriculation Office between 12 and 4 on the day of graduation. Any Graduate who cannot appear personally is required to give written authority to some person to receive and give a receipt for his Diploma.

TIME-TABLE OF EXAMINATIONS.

The dates of the Examinations for 1897-98 have been fixed as follows, and Candidates are required to assemble in the Examination Hall at the University a quarter of an hour before the time fixed for examination.

Preliminary Examination.

See Time-Table and Dates of Entering, &c., pages 359 and 360.

PROFESSIONAL EXAMINATIONS.

Candidates are required to enter their names and to pay the fees for the Examinations at the Matriculation Office, University (Old) Buildings, at the stated periods, and afterwards, at the stated periods, to exhibit their Certificates and Matriculation Cards at that Office. Certificates only will be received as evidence of attendance.

First Professional Examination.[1]

This Examination takes place in March and July. Candidates may be admitted to Examination in all or in any two subjects, after they have attended a full course in each of the subjects professed.

1898.

Mar.	8.	Tu.	Names to be given in, and Fees paid, *on or before* this date.
,,	18.	Fri.	Certificates to be examined from 10 to 3.
,,	19.	Sat.	Practical Chemistry Examination begins at hours to be announced (also on subsequent days if necessary).
			Written Examinations.[2]
,,	21.	Mon.	Chemistry at 10 o'clock; Physics at 1 o'clock.
,,	22.	Tu.	Zoology at 10 o'clock; Botany at 1 o'clock.
			Written Examinations.[2]
July	8.	Fri.	Names to be given in, and Fees paid *on or before* this date.
,,	15.	Fri.	Certificates to be examined from 10 to 3.
,,	16.	Sat.	Practical Chemistry Examination begins at hours to be announced (also on subsequent days if necessary).
,	18.	Mon.	Chemistry at 10 o'clock; Physics at 1 o'clock.
,,	19.	Tu.	Zoology at 10 o'clock; Botany at 1 o'clock.

[1] If names are not entered or Fees paid, or Certificates shown, on or before the stated dates, a late-entry fee of ten shillings must be paid before the Candidate can be admitted to Examination. A Candidate is not held to have entered for the Examination until his Name is entered, all the necessary Certificates, &c., lodged, and the Fee paid.

[2] Lists for the Oral Examinations will be posted immediately after the respective Written Examinations.

Second Professional Examination.[1]

This Examination takes place in March and July. Candidates who have passed the First Examination may be admitted to this Examination at the end of their Third Winter Session.

Written Examinations.[2]

Mar.	14.	Mon.	Names to be given in, and Fees paid *on or before* this date.
,,	23.	Wed.	Certificates to be examined from 10 to 3.

Written Examinations.[2]

,,	25.	Fri.	Anatomy at 10 o'clock ; Physiology at 1 o'clock.
,,	26.	Sat.	Materia Medica and Therapeutics at 10 o'clock.

Candidates may postpone their Examination in Materia Medica and Therapeutics until the close of the Summer Session following.

Written Examinations.[2]

July	14.	Thur.	Names to be given in, and Fees paid *on or before* this date.
,,	16.	Sat.	Certificates to be examined from 9 to 2.

Written Examination.[2]

,,	21.	Thur.	Anatomy at 10 o'clock ; Physiology at 1 o'clock.
,,	22.	Fri.	Materia Medica and Therapeutics at 10 o'clock.

Third Professional Examination.[1]

This Examination takes place in March and July, and Candidates who have passed the Second Examination may be admitted to this Examination at the end of their Fourth Winter Session.

1898.

Mar.	24.	Thur.	Names to be given in, and Fees paid *on or before* this date.
,,	29.	Tu.	Certificates to be examined from 10 to 3.

Written Examinations.[2]

Apr.	2.	Sat.	Pathology at 10 o'clock ; Medical Jurisprudence and Public Health at 1 o'clock.

Candidates may postpone their Examination in Medical Jurisprudence and Public Health until the close of the Summer Session following.

Written Examination.[2]

July	19.	Tu.	Names to be given in and Fees paid *on or before* this date.
,,	25.	Mon.	Certificates to be examined from 10 to 3.
,,	26.	Tu.	Pathology at 10 o'clock. Medical Jurisprudence and Public Health at 1 o'clock.

[1] See footnote 1, page 366.

[2] See footnote 2, page 366.

FOURTH OR FINAL PROFESSIONAL EXAMINATION.[1]

This Examination takes place in May and June, and may be taken when the Candidate has passed the Third Examination, and has completed his Fifth year of Medical Study.

April	12.	Tu.	Names to be given in and Fees paid *on or before* this date.
,,	14.	Thur.	Certificates to be examined from 10 to 1.
,,	15.	Fri.	

Written Examinations.[2]

May	3.	Tu.	Clinical Medicine Examinations begin.
June	20.	Mon.	Medicine at 10 o'clock ; Midwifery at 1 o'clock.
,,	21.	Tu.	Surgery at 10 o'clock.
,,	22.	Wed.	Clinical Surgery Examination begins.

DEGREE OF DOCTOR OF MEDICINE.[1]

April	30.	Sat.	Thesis to be lodged, Certificates shown, and Fees paid *on or before* this date.

Written Examinations.[2]

June	24.	Fri.	Names to be entered and Fees paid by Candidates for Clinical Examination only *on or before* this date.
July	8.	Fri.	Clinical Medicine Examination begins at 9.45 A.M.

1898.

DEGREE OF MASTER OF SURGERY.[1]

April	30.	Sat.	Thesis to be lodged, Certificates shown, and Fees paid *on or before* this date.

Written Examinations.[2]

June	24.	Fri.	Names to be entered and Fees paid by Candidates for Clinical Examination only *on or before* this date.
July	8.	Fri.	Surgical Anatomy. Operations on the dead body. Clinical Surgery Examinations begin.
,,	20.	Wed.	Names to be given in for Graduation, and the Registration Fee (if not previously registered) paid *on or before* this date.[1]

DEGREE OF D.SC.

Jan.	20.	Thur.	Thesis to be lodged, Certificates shown, and Fees paid *on or before* this date.
Aug.	1.	Mon.	GRADUATION CEREMONIAL at 10 A.M. Graduands to assemble at 8.45 A.M.

Information relative to Matriculation and the Curriculum of Study, and the Subjects of Examinations for Degrees in Medicine and Surgery, and for Fellowships, Scholarships, Bursaries, Prizes, &c., &c., may be obtained on application to the Dean of the Faculty of Medicine, University New Buildings.

[1] See footnote 1, page 366.

[2] See footnote 2, page 366.

The fees for Matriculation, for Examinations for Degrees, and for Registration as Member of the General Council of the University, are payable at the *Matriculation Office*, *University* (*Old*) *Buildings*. Candidates may pay the fees personally, or transmit them to T. GILBERT, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed "*Union Bank of Scotland* (*Hunter Square Branch*), *Edinburgh*," and not by cheques on private accounts. A Candidate is not held to be entered until his schedule is lodged, the fee paid, his certificates examined, and a pass to the Examination obtained.

EXTRA-ACADEMICAL TEACHERS.

REGULATIONS OF THE UNIVERSITY COURT RELATIVE TO CERTIFICATES OF ATTENDANCE.

The Certificate of Attendance granted to Students by recognised Extra-Academical Teachers, should, in all cases, state the number of Lectures, or of Meetings for Practical Instruction, in the Course; the number of occasions on which attendance was ascertained; and the number of those occasions on which the Student was present, and in what further respects he duly performed the work of the class. The Certificate should also state the general scope of the Course; and, in particular, in the case of *Chemistry*, that the Course included Organic as well as Inorganic Chemistry; in the case of *Midwifery*, that it included the Diseases of Women and Children; and, in the case of *Practical Materia Medica*, that it included Pharmacognosy, Pharmacy, Dispensing, and the writing of Prescriptions.

EXTRA-ACADEMICAL TEACHERS, WHOSE LECTURES QUALIFY FOR GRADUATION IN THIS UNIVERSITY.

ABERYSTWYTH.

		Date of Recognition.
J. Ainsworth Davis, M.A.	Natural History,	28 July 1886.
D. Morgan Lewis	Physics,	16 July 1894.
J. H. Salter, B.Sc.	Botany,	30 Oct. 1893.
H. Lloyd Snape, D.Sc.	Chemistry & Practical Chemistry,	19 March 1888.

BANGOR.

James J. Dobbie, D.Sc.,	Chemistry & Practical Chemistry,	30 May 1885.
Andrew Gray,	Physics,	26 Oct. 1892.
Reginald W. Phillips, M.A.,	Botany,	30 May 1885.
Philip J. White, M.B.,	Natural History,	9 Dec. 1889.

BELFAST.

R. O. Cunningham, M.D.,	Zoology,	18 Feb. 1895.

BIRMINGHAM.

		Date of Recognition.
F. J. Allen, M.A.,	Physiology & Practical Physiology,	12 Dec. 1887.
T. W. Bridge, M.A.,	Zoology,	9 July 1883.
Percy F. Frankland, Ph.D.	Chemistry & Practical Chemistry,	16 July 1894.
W. Hillhouse, M.A.,	Botany,	26 Nov. 1883.
J. H. Poynting, D.Sc.,	Physics,	12 June 1893.
Bertram C. A. Windle, M.D.,	Anatomy,	17 Nov. 1884. 29 Oct. 1888.

BRISTOL.

G. Munro Smith, L.R.C.P., M.R.C.S.	Physiology & Practical Physiology,	29 Oct. 1888.

(*Certificates for two consecutive Lecture Courses required.*)

CARDIFF.

John Berry Haycraft, M.D.,	Physiology.	16 July 1894.
A. W. Hughes, M.B.,	Anatomy,	16 July 1894.
J. V. Jones, M.A., B.Sc.,	Physics,	16 July 1894.
W. N. Parker, Ph.D.,	Natural History,	28 July 1886.
Arthur Selby, M.A.,	Physics,	21 Oct. 1895.
Claud M. Thompson, M.A., D.Sc.,	Chemistry & Practical Chemistry,	28 July 1886.

(*Lecture Course may be divided between two consecutive Sessions.*)

A. H. Trow, B.Sc.,	Botany,	16 July 1894.

CORK.

J. J. Charles, M.D., D.Sc.,	Physiology,	18 Feb. 1895.

(*Qualifying Course to embrace "Ordinary Course" and Course for Senior Students.*)

Marcus Hartog, M.D., D.Sc.,	Zoology,	18 Mar. 1895.

DUBLIN.

A. C. Haddon, M.A.,	Natural History,	23 Jan. 1888.
Chs. R. C. Tichborne, Ph.D.,	Practical Chemistry,	28 Feb. 1881.

EDINBURGH.

A. P. Aitken, D.Sc.,	Chemistry & Practical Chemistry,	29 Oct. 1888.
J. O. Affleck, M.D.,	Practice of Physic,	8 Dec. 1879.
R. J. A. Berry, M.D.,	Anatomy,	14 Dec. 1896.
Byrom Bramwell, M.D.,	Practice of Physic,	18 Oct. 1880.
J. Macdonald Brown, M.B.,	Anatomy & Practical Anatomy,	18 July 1884.
Alexander Bruce, M.D.,	Pathology & Practical Pathology,	24 January 1887.

EDINBURGH—*continued.*		*Date of Recognition.*
A. G. Bruce,	Practical Materia Medica,	18 June 1894.
Francis M. Caird, M.B., C.M.,	Surgery,	13 August 1886.
Wm. Craig, M.D.,	Materia Medica & Prac. Materia Med.	14 July 1879.
T. W. Drinkwater, Ph.D.	Chemistry and	8 March 1880.
	Practical Chemistry,	14 July 1879.
William Duncan,	Prac. Materia Med.,	12 April 1886.
E. S. Fry, M.B.,	Practical Materia Medica,	21 Oct. 1895.
George A. Gibson, M.D.,	Practice of Physic,	9 Dec. 1889.
David Berry Hart, M.D.,	Midwifery,	22 Oct. 1894.
F. W. N. Haultain, M.D.,	Midwifery,	15 June 1891.
J. W. B. Hodsdon, M.D.,	Surgery,	3 August 1888.
John Hunter, F.I.C., &c.,	Chemistry & Practical Chemistry,	22 Oct. 1894.
Alex. James, M.D.,	Practice of Physic,	3 August 1888.
Alexander Johnstone,	Botany,	26 Oct. 1892.
J. Falconer King, F.C.S.,	Chemistry & Practical Chemistry,	12 Nov. 1894.
R. F. C. Leith, M.B., B.Sc.,	Pathology,	26 Oct. 1892.
	Prac. Pathology,	13 June 1892.
Stevenson Macadam, Ph.D.,	Chemistry & Practical Chemistry,	before 1861.
W. Ivison Macadam, F.R.S.E.	Chemistry & Practical Chemistry,	23 July 1888.
A. N. M'Alpine, B.Sc.,	Botany,	8 March 1880.
Charles W. MacGillivray, M.D., and P. H. M'Laren, M.B.,	Clinical Surgery,	14 Nov. 1892.
George Mackay, M.D.,	Ophthalmology,	13 July 1896.
J. S. M'Laren, M.B.,	Surgery,	26 Oct. 1892.
Alexander Miles, M.D.,	Anatomy and Practical Anatomy,	12 Feb. 1894.
Alexander G. Miller, M.D.,	Clinical Surgery,	3 August 1888.
R. Milne Murray, M.B.,	Midwifery,	13 August 1886.
James Musgrove, M.D.,	Anatomy,	16 July 1894.
D. Nöel Paton, M.D.,	Physiology and	24 Oct. 1887.
	Prac. Physiology,	19 March 1888.
R. W. Philip, M.D.,	Medicine,	16 July 1894.
J. B. Readman, D.Sc.,	Practical Chemistry,	17 Dec. 1888.
W. G. Aitchison Robertson, M.D.	Medical Jurisprudence and Public Health (*for one year*),	10 April 1897.

EDINBURGH—*continued.*		*Date of Recognition.*
Royal Hospital for Sick Children—Extra-Academical Teachers in Diseases of Children, 15th February, 1897.		
William Russell, M.D.,	Pathology & Practical Pathology,	6 August 1887.
Ralph Stockman, M.D.,	Materia Medica & Prac. Materia Med.,	9 Dec. 1889.
Alexis Thomson, M.D.,	Surgery,	30 Oct. 1893.
J. Arthur Thomson, M.A.,	Natural History,	28 July 1886.
J. Batty Tuke, M.D., and John Macpherson, M.D., conjointly,	Mental Diseases,	13 July 1896.
R. Turnbull, B.Sc.,	Botany,	18 Feb. 1895.
Dawson F. D. Turner, M.D.,	Physics,	20 March 1893.
David Wallace, M.B.,	Surgery,	14 Dec. 1896.
J. R. Whitaker, M.B.,	Anatomy,	16 July 1894.
William Wood, M.B.,	Prac. Materia Med.,	15 June 1893.
John Wyllie, M.D.,	Practice of Physic,	20 Dec. 1878.
GLASGOW.		
John Barlow, M.D.,	Physiology,	26 Nov. 1883.
	Prac. Physiology,	8 January 1890.
D. Campbell Black, M.D.,	Physiology,	15 July 1895.
A. M. Buchanan, M.D.,	Anatomy and Practical Anatomy,	12 Oct. 1874.
R. M. Buchanan, M.D.,	Medical Jurisprudence,	13 July 1896.
H. E. Clark, M.D.,	Surgery,	12 Feb. 1894.
James Dunlop, M.D.,	Surgery,	12 Oct. 1874.
John Edgar, M.D., B.Sc.,	Midwifery,	14 Dec. 1896.
Samson Gemmell, M.D.,	Practice of Physic,	18 July 1881.
R. T. Kent, F.R.C.S.,	Practical Anatomy,	18 Dec. 1893.
R. Barclay Ness, M.A., M.B.,	Materia Medica & Prac. Materia Med.	16 Dec. 1895.
Alex. Robertson, M.D.,	Practice of Physic,	15 June 1891.
John Lindsay Steven, M.D.,	Pathology & Practical Pathology,	10 April 1893.
LONDON.		
G. B. Howes,	Natural History,	18 July 1887.
NOTTINGHAM.		
J. W. Carr, M.A.,	Botany,	16 Jan. 1893.
Frank Clowes, D.Sc.,	Chemistry & Practical Chemistry,	9 Dec. 1889.
SHEFFIELD.		
W. Carlton Williams, B.Sc.,	Chemistry & Practical Chemistry,	26 Nov. 1883.

B.—REGULATIONS FOR GRADUATION IN MEDICINE AND SURGERY, APPLICABLE TO ALL WHO COMMENCED THEIR MEDICAL STUDIES BEFORE 1ST OCTOBER 1892.

Three Degrees in Medicine and Surgery are conferred by the University of Edinburgh—viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The Degree of Master in Surgery is not conferred on any person who does not at the same time obtain the Degree of Bachelor of Medicine.

These Degrees admit to the General Council of the University, and to the Medical Register. They qualify for Practice throughout Her Majesty's dominions, and for admission to the Military, Naval, and other Public Medical Services in the United Kingdom.

All Candidates must give evidence of having obtained a satisfactory General Education.

PRELIMINARY EXAMINATION.[1]

See Time-Table of Examinations, Dates for Entering and Payment of Fees, &c., pp. 359 *and* 360.

I. The preliminary branches of extra-professional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and the proficiency of Students in these branches is ascertained by examination, prior to the commencement of their medical study.

II. No Candidate is admitted to a professional examination who has not passed a satisfactory examination on at least two of the following subjects (in addition to the subjects mentioned above):—Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy; and the examination on these latter subjects also takes place before the candidate has entered on his Medical Curriculum.

III. A Degree in Arts (not being an Honorary Degree) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University, specially recognised for this purpose by the University Court, exempts from all preliminary examination; and an Examination in Arts by any corporate body, whose examination has been recognised as qualifying for

[1] The Dean of the Faculty will give information regarding examinations which exempt from the Preliminary Examination; and see also CALENDAR for 1892-93, and previous Calendars, for examinations which exempt.

entrance on medical study by resolution of the General Medical Council of the United Kingdom, provided the said examination by the said corporate body shall be also approved by the University Court, shall exempt, *pro tanto*, from preliminary examination in Arts, on the subjects comprised in the said examination of the said corporate body.[1]

Optional Preliminary Subjects of Examination under the Old Regulations for Bachelors of Medicine who intend to proceed to the Degree of Doctor of Medicine, and for those who commenced the Study of Medicine by attendance on Medical Classes before 1st October 1892, *from Autumn* 1897 *to Spring* 1899 *inclusively.*

Each Candidate is required to pay a fee of 10s. 6d. for each appearance at the Preliminary Examination.

1. GREEK.—Xenophon, *Cyropaedia*, Book VII. Some easy sentences of English will be set to be translated into Greek.

2. FRENCH.—Alphonse Daudet's *Le petit Chose*, *première partie* (Hachette & Co.). An easy passage in English will be given for translation into French.

3. GERMAN.—Homann, *Deutsche Märchen*, Nos. 8-14. An easy passage in English will be given for translation into German.

4. HIGHER MATHEMATICS.—Same as Higher Mathematics for the Preliminary Examination for the Degree in Arts.

5. NATURAL PHILOSOPHY.—(1.) Properties of matter—Elasticity, Density, Porosity, Capillarity, &c. (2.) Elementary phenomena of Sound, Light, Heat, Electricity, and Magnetism. Text-Books recommended—Balfour Stewart's *Elementary Physics*, and Tait's *Properties of Matter*.

6. LOGIC.—The Elements of Deductive and Inductive Logic, as in Fowler or Jevons.

7. MORAL PHILOSOPHY.—Professor Calderwood's *Handbook of Moral Philosophy*.

PROFESSIONAL EDUCATION.

IV. No one is admitted to the DEGREES of BACHELOR of MEDICINE and MASTER in SURGERY who has not been engaged in Medical and Surgical study for four years—the Medical Session of each year, or *Annus Medicus*, being constituted by at least two Courses of not less than one hundred lectures each, or by one such Course, and two Courses of not less than fifty lectures each; with the exception of the Clinical Courses, in which lectures are to be given at least twice a week during the prescribed periods.

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[1] See footnote, page 373.

V. Every Candidate for the Degrees of M.B. and C.M. must give sufficient evidence by certificates—[1]

1. That he has studied each of the following departments of Medical Science, viz.,

ANATOMY, ...	During Courses including not less than One Hundred Lectures.
CHEMISTRY, ...	
MATERIA MEDICA, ...	
INSTITUTES OF MEDICINE OR PHYSIOLOGY,	
PRACTICE OF MEDICINE, . . .	
SURGERY, ...	
MIDWIFERY, and the DISEASES peculiar to WOMEN and CHILDREN; two Courses of Midwifery, of Three Months each, being reckoned equivalent to a Six Months' Course, provided different departments of Obstetric Medicine be taught in each of the Courses, . .	
GENERAL PATHOLOGY, or in Schools where there is no such Course, a Three Months' Course of Lectures on Morbid Anatomy, together with a Supplemental Course of Practice of Medicine or Clinical Medicine,	
PRACTICAL ANATOMY, .	A Course of the same duration as those of not less than One Hundred Lectures above prescribed.[2]
PRACTICAL CHEMISTRY, .	Three Months.
CLINICAL MEDICINE, .	Courses of the same duration, as those of not less than One Hundred Lectures above prescribed, or Two Courses of Three Months, Lectures being given at least twice a week.
CLINICAL SURGERY, .	
MEDICAL JURISPRUDENCE, . .	During Courses including not less than Fifty Lectures.
BOTANY, ...	
NATURAL HISTORY, including ZOOLOGY,	

2. That he has attended for at least two years the Medical and Surgical

[1] No Course of Lectures will be allowed to qualify unless the Lecturer certifies that it has embraced at least 100 lectures or 50 lectures, in conformity with the requirements of this section. Three Months' courses on Materia Medica, Pathology, and Midwifery do not qualify.

[2] Certificates of attendance on Practical Anatomy must express not only the number of months engaged in dissection, but the names of the parts dissected, and the degree of care with which the dissections have been made. Students are recommended not to appear for examination in Anatomy, with a view to a Degree, until they have dissected the human body at least once.

Practice of a General Hospital which accommodates not fewer than eighty patients, and possesses a distinct staff of Physicians and Surgeons.

3. That he has attended during a Course of not less than fifty hours' instruction the Class of Practical Materia Medica and Pharmacy in the University of Edinburgh, or a similar class conducted in a University or recognised School of Medicine, or a similar Class conducted at the Laboratory of an Hospital or Dispensary, or elsewhere, by a Teacher recognised by the University Court under Section VI. Sub-section 4; or, that he has been engaged by apprenticeship,[1] for not less than two years, with a Registered Medical Practitioner, or a Member of the Pharmaceutical Society of Great Britain, or a Member of the Pharmaceutical Society of Ireland, or a Pharmaceutical Chemist, or Chemist and Druggist, registered under the provisions of the "Act for regulating the qualifications of Pharmaceutical Chemists, 1852," "The Pharmacy Act, 1868," or "The Pharmacy Act (Ireland), 1875," in the *bona fide* compounding and dispensing of Drugs, and the preparation of their officinal and other Preparations under his superintendence.

4. That he has attended, for at least six months, by apprenticeship or otherwise, the *out-practice* of an Hospital, or the practice of a Dispensary, Physician, Surgeon, or Member of the London or Dublin Society of Apothecaries.

5. That he has attended at least twelve cases of labour under the superintendence of a registered Medical Practitioner; or that he has attended six such cases, and also has attended for at least three months the practice of a Midwifery Hospital in which practical instruction is regularly given.

6. That he has attended, during courses of not less than fifty hours' instruction, Classes of Practical Physiology and Practical Pathology in the University of Edinburgh, or in a University or School of Medicine recognised by Sub-sections 2 and 4 of Section VI. of Ordinance No. 8, Edinburgh No. 3, or upon Classes thereof, conducted by a Teacher recognised by the University Court under the said Sub-section 4.

VI. The studies of Candidates for the Degrees of Bachelor of Medicine and Master in Surgery are subject to the following Regulations :—

1. One of the four years of Medical and Surgical study, required by Section IV., must be in the University of Edinburgh.

2. Another of such four years of Medical and Surgical study must be either in the University of Edinburgh, or in some other University entitled to give the Degree of Doctor of Medicine.

3. Attendance during at least six winter months on the Medical or Surgical Practice of a General Hospital, which accommodates at least

[1] Apprenticeship, Dispensary or Hospital Practice, Practical Midwifery, and Vaccination, &c., are not reckoned as *Classes* in making up an *Annus Medicus*.

eighty patients, and, during the same period, on a course of Practical Anatomy, may be reckoned as one of such four years, and to that extent shall be held equivalent to one year's attendance on Courses of Lectures as above prescribed.

4. One year's attendance on the Lectures of Teachers of Medicine in the Hospital Schools of London (including the Professors in the Faculty of Science, in subjects required for graduation, in King's College and University College, London), or in the School of the College of Surgeons in Dublin, or of such Teachers of Medicine in Edinburgh, or elsewhere, as may from time to time be recognised by the University Court, may be reckoned as one of such four years, and to that extent shall be held as attendance on Courses of Lectures as above prescribed.

5. Candidates may, to the extent of Four of the Departments of Medical Study required by Section V., Sub-section 1, attend in such year or years of their Medical and Surgical studies, as may be most convenient to them, the Lectures of the Teachers of Medicine specified in the foregoing Sub-section 4.

[Thus, Students of Medicine in the London Schools and in the School of the College of Surgeons in Dublin can obtain there two *Anni Medici* out of the four required for the Edinburgh Degrees in Medicine. Courses of Lectures in these Schools, and the Courses of the Medical Teachers and of the Science Teachers in King's College and in University College, London, in the Subjects of Graduation, are regarded as equivalent to Lectures on the corresponding subjects in this University, except Materia Medica and Midwifery, which, when only three months' Courses, are not received as equivalent. One *Annus Medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the Winter Session. Another *Annus Medicus* by attending either (*a*) full Winter Courses on any two of the following subjects: Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine; or (*b*) on one such Course and two three months' Courses on any of the following subjects: Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the Student selects the arrangement prescribed in (*a*), attendance on a third Course, although unnecessary to constitute an *Annus*, will also be accepted. The other subjects, and the additional Courses, not given in London or Dublin, necessary for the degrees of the University, require to be attended at this University.

In Provincial Schools, where there are no Lecturers recognised by the University Court, a Candidate can have only One *Annus Medicus*, and this is constituted by attendance on a Qualified Hospital along with a course of Practical Anatomy, but in a Provincial School where there are two or more Lecturers recognised by this University, a Second *Annus*

Medicus may be made by attendance on at least two six months', or one six months' and two three months', recognised Courses.

6. All Candidates not Students of the University, availing themselves of the permission to attend the Lectures of Extra-Academical Teachers in Edinburgh, must, at the commencement of each year of such attendance, enrol their names in a book to be kept by the University for that purpose, paying a Fee of the same amount as the Matriculation Fee paid by Students of the University, and having, in respect of such payment, a right to the use of the Library of the University.

7. The Fee for attendance on the Lectures of an Extra-Academical Teacher in Edinburgh, with a view to Graduation, must be of the same amount as that exigible by Medical Professors in the University.

[*The Fee must be paid at the commencement of the Course, and Certificate must state the amount of the fee paid.*]

8. No Teacher is recognised who is at the same time a Teacher of more than one of the prescribed branches of study, except in those cases where Professors in the University are at liberty to teach two branches.

9. It is not necessary for any Teacher, attendance on whose Lectures was recognised before 1861 for the purposes of Graduation in the University, to obtain a new recognition from the University Court; and attendance on the Lectures of every such Teacher will continue to be recognised as heretofore.

10. It is in the power of the University Court, if they shall see cause, at any time to withdraw or suspend the recognition of any Teacher or Teachers.

VII. Every Candidate must deliver, before the 31st day of March of the year in which he proposes to Graduate, to the Dean of the Faculty of Medicine—

1. A declaration, in his own handwriting, that he has completed his twenty-first year, [or that he will have completed it on or before the day of Graduation,] and that he will not be, on the day of Graduation, under articles of apprenticeship to any Surgeon or other master. (This declaration, along with a statement of studies, is appended to the Schedule for the Final Examination, and must be attested and signed before the Schedule is given in.)

2. A statement of his studies, as well in Literature and Philosophy as in Medicine, accompanied with proper certificates.

PROFESSIONAL EXAMINATIONS.

VIII. Each Candidate is examined, both in writing and *viva voce—Firstly*, on Chemistry, Botany, and Natural History; *Secondly*, on Anatomy, Institutes of Medicine, Materia Medica [including Practical Pharmacy and Prescribing], and Pathology; *Thirdly*, on Surgery, Practice of Medicine, Midwifery, and

Medical Jurisprudence; *Fourthly*, Clinically on Medicine and on Surgery in an Hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History, Materia Medica and Pathology are conducted, as far as possible, by demonstrations of objects placed before the candidates.

IX. Students who profess themselves ready to submit to an examination in the first division of these subjects may be admitted to examination therein at the first period of examination after they have completed their attendance on the necessary classes: provided always that it shall be lawful for students to proceed to examination in the said subjects under one or more of the following sub-divisions, namely—(*a*) Botany and Natural History, (*b*) Chemistry (including Practical Chemistry), (*c*) Botany and Chemistry (including Practical Chemistry), or (*d*) Natural History and Chemistry (including Practical Chemistry), at the first period of examination after they have completed attendance on the relative classes; and to proceed to examination in the remaining subject or subjects at a subsequent period of examination.

X. Students who have passed their examination on the first division of these subjects, may be admitted to examination on the second division at the end of their third year.

XI. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *Annus Medicus*.

XII. Candidates may, if they choose, be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of their fourth year.

[Thus, Candidates for the First Professional Examination, after they have completed attendance on the necessary Classes, may appear for Examination in all the subjects, or they may appear for Examination in one or more of the separate sub-divisions mentioned in Section IX.; for the Second Professional Examination attendance for three complete *Anni Medici* is required; and for the Final Professional Examination, four complete *Anni Medici* are required. Qualifying courses must have been attended on all the subjects of each division or

sub-division of Examination previously to the Candidate being admitted to examination in that division.]

XIII. If any Candidate at these examinations be found unqualified, he cannot be again admitted to examination unless he has studied, during another year, two of the prescribed subjects,[1] either in the University, or in some other School of Medicine.

DEGREE OF DOCTOR OF MEDICINE.

XVII. The Degree of DOCTOR OF MEDICINE may be conferred on any candidate who has obtained the Degrees of Bachelor of Medicine and Master in Surgery, and is of the age of twenty-four years, and produced a certificate of having been engaged subsequently to his having received the Degrees of Bachelor of Medicine and Master in Surgery, for at least two years in attendance on an Hospital, or in the Military or Naval Medical Services, or in Medical and Surgical Practice:

Provided always that the Degree of Doctor of Medicine shall not be conferred on any person, unless he be a Graduate in Arts of one of the Universities of England, Scotland, or Ireland, or of such other Universities as are above specified [Section III.], or unless he shall, before or at the time of his obtaining the Degrees of Bachelor of Medicine and Master in Surgery, or thereafter, have passed a satisfactory examination on *three* of the subjects mentioned in Section II. of the Statutes relative to Preliminary Examination. Two of these must be Greek, and either Logic or Moral Philosophy, and the third must be one of the following subjects at the option of the Candidate—namely, French, German, Higher Mathematics, and Natural Philosophy.

And provided also that the candidate for the Degree of Doctor of Medicine shall submit to the Faculty of Medicine a Thesis, certified by him to have been composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the Degrees of Bachelor of Medicine and Master in Surgery, which he may have made a subject of study after having received those Degrees. The Candidate must lodge his Thesis with the Dean on or before 30th April of the year in which he proposes to graduate. No Thesis will be approved by the Medical Faculty which does not contain either the results of original observations in practical Medicine, Surgery, Midwifery, or in some of the sciences

[1] Satisfactory Certificates must be produced as evidence of such study.

embraced in the curriculum for the Bachelor's and Master's Degrees; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the Candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.[1]

Candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the Degree of M.D., but who cannot appear personally to receive the Degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the Degree conferred on them in absence.

The Regulations regarding Matriculation, Attendance on the necessary Classes, Vaccination, &c., are the same as under the New Regulations.

FEES FOR DEGREES, &c. (OLD REGULATIONS).[2]

Examination in Botany, Chemistry, Chemical Testing, Natural History,	£5	5	0
Examination in Anatomy, Institutes of Medicine, Materia Medica, Prescriptions, Pathology,	5	5	0
Final Examination in Surgery, Midwifery, Practice of Physic, Medical Jurisprudence, Clinical Medicine (with Prescriptions), Clinical Surgery, during last Summer Session,	10	10	0
Total Fees for M.B. and C.M. Diplomas,	£21	0	0
Additional Fee for M.D. Diploma,	£5	5	0
Matriculation Fee,	1	1	0
Fee for Registration as a Member of the University General Council, if not already a Member,	1	0	0

In the event of the Candidate failing to pass any one of the Professional Examinations, the Fee is not returned: but he may appear at one subsequent examination without paying an extra Fee, and at any future examination on paying a Fee of £2, 12s. 6d.

TIME-TABLE OF EXAMINATIONS,[3] &c.

Preliminary Examination.

See Time-Table of Examinations, Dates of Entering, &c., pages 359 *and* 360.

The dates of the Examinations for 1897-98 have been fixed as

[1] Candidates are required to write their Theses on faint lined paper, 11 in. by 8½ in. with margins 1½ in. at each side. The Thesis is to be written on one side of each leaf only.

[2] See page 369 as to payment of fees.

[3] See footnote 1, p. 366.

follows, and Candidates are required to assemble in the Examination Hall at the University a quarter of an hour before the time fixed for examination.

PROFESSIONAL EXAMINATIONS UNDER OLD REGULATIONS.

Candidates are required to enter their names and to pay the fees for the Examinations at the Matriculation Office, University (Old) Buildings, at the stated periods, and afterwards, at the stated periods, to exhibit their Certificates and Matriculation Cards at that Office. Certificates only will be received as evidence of attendance.

First Professional Examination.[1]

1898.			
Mar.	8.	Tues.	Names to be given in, and Fees paid *on or before* this date.[1]
,,	18.	Fri.	Certificates to be examined.
,,	19.	Sat.	Practical Chemistry begins at hours to be announced. (Also on subsequent days if necessary).
			Written Examination.[2]
,,	21.	Mon.	Chemistry, 10
,,	22.	Tues.	Zoology, 10; Botany, 1.
July	8.	Fri.	Names to be given in, and Fees paid *on or before* this date.
1898.			
July	15.	Fri.	Certificates to be examined.
,,	16.	Sat.	Practical Chemistry begins at hours to be announced. (Also on subsequent days if necessary).
			Written Examination.[2]
,,	18.	Mon.	Chemistry, 10.
,,	19.	Tues.	Zoology, 10; Botany, 1.

Second Professional Examination.[1]

Mar.	14.	Mon.	Names to be given in, and Fees paid *on or before* this date.
,,	23.	Wed.	Certificates to be examined.
			Written Examination.[2]
,,	25.	Fri.	Anatomy, 10; Physiology, 1.
,,	26.	Sat.	Materia Medica, 10.
April	2.	Sat.	Pathology, 10.
July	14.	Thur.	Names to be given in, Certificates shown, and Fees paid for the Examination in July *on or before* this date.

[1] See footnote 1, page 366.

[2] See footnote 2, page 366.

July	16.	Sat.	Certificates to be examined.
			Written Examination.[1]
,,	21.	Thur.	Anatomy, 10 ; Physiology, 1.
,,	22.	Fri.	Materia Medica, 10.
,,	26.	Tues.	Pathology, 10.

FINAL PROFESSIONAL EXAMINATION.[2]

April	12.	Tues.	Names to be given in, and Fees paid *on or before* this date.
,,	13.	Wed.	Certificates to be examined.
,,	14.	Thur.	
May	3.	Tu.	Clinical Medicine Examinations begin.
			Written Examination.[1]
June	20.	Mon.	Medicine, 10 ; Midwifery, 1.
,,	21.	Tues.	Surgery, 10 ; Medical Jurisprudence, 1.
,,	22.	Wed.	Clinical Surgery Examinations begin.

DEGREE OF M.D.[2]

April	30.	Sat.	Theses to be given in, Certificates shown, and Fees paid *on or before* this date.
July	20.	Wed.	Names to be given in for Graduation and Registration Fee (if not previously registered) paid *on or before* this date.
Aug.	1.	Mon.	GRADUATION CEREMONIAL at 10 A.M. Graduands are required to assemble at 8.45 A.M.

DOCTORS OF MEDICINE

WHO HAVE BEEN AWARDED GOLD MEDALS FOR THEIR THESES FROM 1889 TO 1896 INCLUSIVELY.[3]

1889.

Herbert H. Ashdown, England
John W. Ballantyne, Scotland
Arthur J. M'D. Bentley, England
Kenneth M. Douglas, Scotland
Thomas A. Helme, England
Henry Alexis Thomson, Scotland
Joseph Tillie, Scotland
Herbert F. Waterhouse, England

1890.

Joseph Griffiths, Wales
Robert Muir, Scotland
George Edmund Pierez, Ceylon
W. G. A. Robertson, Scotland
Arthur Robinson, England
John David Williams, Wales

1891.

Edmund W. W. Carlier, England
Vaughan Berkeley Harley, England
David Hepburn, Scotland
Alexander Miles, Scotland
James Ritchie, Scotland
George Neil Stewart, Scotland
John Clarence Webster, Canada

[1] See footnote 2, page 366.

[2] See footnote 1, page 366.

[3] The names of those who received Gold Medals prior to 1859 will be found in the List of Graduates in Medicine of the University of Edinburgh since its foundation, published in 1867, and the names of those who received Gold Medals from 1859 to 1888, both years included, will be found in the Historical Appendix to List of Graduates, published in 1889, pp. 128, 129.

1892.

George Sandison Brock, Scotland
Alex. Lockhart Gillespie, Scotland
William Aldren Turner, Scotland
Arthur John Whiting, England
Theodore Stacey Wilson, England

1893.

Francis Darby Boyd, Scotland
James Samuel Risien Russell, Demerara
James Lorrain Smith, Scotland
John Cleasby Taylor, England
William Ernest Francis Thomson, Scotland

1894.

Lewis Campbell Bruce, Scotland
William Menzies Hutton, Scotland
Gustav Mann, India
James Acworth Menzies, Scotland
John Douglas Stanley, Ireland

1895.

Frank Leigh Ehrke, England
Wilfred Vincent Miller Koch, Ceylon
James Ritchie, Scotland
Andrew Walker, Scotland

1896.

Robert Swan Aitchison, Scotland
William Elder, Scotland
Robert Alexander Fleming, Scotland
Claude Buchanan Ker, England
John Macpherson, Scotland
Thomas Hugh Milroy, Scotland
George Robert Wilson, Scotland

DOCTORS OF MEDICINE, WITH THE TITLES OF THEIR THESES, WHO GRADUATED ON 1ST AUGUST 1896.

*** *Obtained Gold Medals for their Dissertations.*

** *Deemed worthy of competing for Gold Medals.*

* *Commended for their Dissertations.*

* Thomas Stewart Adair, England, M.B., C.M., 1890. The Ependyma: an Enquiry into its Anatomy, Physiology, and Pathology.

*** Robert Swan Aitchison, Scotland, M.B., C.M., 1882. Some Effects of certain Diets upon Excretion by the Kidneys and upon the Blood.

Charles Macdonell Anderson, India, M.B., C.M., 1889. A Case of Paradoxical Temperature, with notes on other cases and comments.

Edmund Antrobus, England, M.B., C.M., 1887. The Treatment of Acute Pneumonia.

5 John Richardson Armstrong, Wales, M.B., C.M., 1893. Aneurysm, with special reference to Aneurysm of the Abdominal Aorta, with Notes and Comments on a Case treated.

Frederick Richard Breeks Atkinson, England, M.B., C.M., 1891. Bèri Bèri.

Henry Porter D'Arcy, Benson, Australia, M.B., C.M., 1892. Epilepsy: its Pathology, Etiology, and Treatment.

Thomas Hill Bishop, England, M.B., C.M., 1891. Some Cases treated by the

Tallesman Sheffield Hot Air Bath, with Remarks on the Therapeutic Actions and Uses of the Apparatus.

* John Wilson Black, Scotland, M.B., C.M., 1895. Clinical Remarks with Statistics of Ten Years' Eye Work in the North of Scotland.

George Lindsay Bonnar, Scotland, M.B., C.M., 1885. On Certain Cases of Poisoning.

David Haitly Burn, Scotland, M.B., C.M., 1892. The Clinical Aspects of Appendicitis.

John Ridley Burnett, England, M.B., C.M., 1890. Empyema.

Thomas John Burton, Scotland, M.B., C.M., 1889. An Enquiry into the Relative Value of Symphysiotomy, Induction of Premature Labour, Embryotomy, and Cæsarean Section, in certain Abnormalities of the Female Pelvis.

* Ernest Stanley Radford Cadman, England, M.B., C.M., 1889. Intra-Cranial Tumours, with special reference to the Pituitary Body.

John Clark, Scotland, M.B., C.M., 1893. Dysentery in the Western Division of the Dooars, Bengal, India, from a General Practitioner's point of view.

** Herbert Davis Coles, England, M.B., C.M., 1892. Pulmonary Hypertrophic Osteo-Arthropathy.

* William Cotton (M.A.), Scotland, M.B., C.M., 1883. Radiographic Projection by Röntgen's Method.

** Carstairs Cumming Douglas, Scotland, M.B., C.M., 1890. A Critical Study of Recent Theories regarding the Causation of Eclampsia Puerperalis, with Special Reference to Auto-intoxication as an Etiological Factor in the Disease.

* Edward Charles Edwards, England, M.B., C.M., 1893. Obstruction of the Thoracic Duct.

** George Elder, Scotland, M.B., C.M., 1891. The Intra-cranial Circulation in the Closed and in the Unclosed Skull.

*** William Elder, Scotland, M.B., C.M., 1885. Aphasia and the Localisation of the Cerebral Speech Mechanism.

* Thomas Fentem, England, M.B., C.M., 1892. Some Notes on Endemic Goître.

*** Robert Alexander Fleming, (M.A.), Scotland, M.B., C.M., 1888. Two Cases of Peripheral Neuritis, considered Clinically and Pathologically, together with an Experimental Research into the relationship of Traumatic Nerve Degenerations to this Disease.

Alfred Walter George, England, M.B., C.M., 1889. Gall Stones and their Treatment.

25* John Gordon Gordon-Munn, Scotland, M.B., C.M., 1889. - Some Observations upon the Uterus and its Appendages in the Insane.

* Lachlan Grant, Scotland, M.B., C.M., 1894. Notes and Observations on Ophthalmic Work.

* William Gray, Scotland, M.B., C.M., 1892. Influenza.

William Charles Greig, Scotland, M.B., C.M., 1880. The Native Drugs which are still in use in the Kingdom of Morocco.

Harry Percival Hannay, England, M.B., C.M., 1891. Asthma.

30 Sydney Walter Haynes, England, M.B., C.M., 1881. The Administration of Anæsthetics.

Gustave Henzé Hogg, Tasmania, M.B., C.M., 1892. Hydatid Disease, with special reference to its Frequency, Etiology, and Treatment.

* Albert George Horden, Wales, M.B., C.M., 1890. The Treatment of Pulmonary Cavities by Free Incision and Drainage.

Arthur Ainslie Hudson, England, M.B., C.M., 1892. Gastric Ulcer.

** Robert Hutchison, Scotland, M.B., C.M., 1893. Contributions to Physiological and Pathological Chemistry: (1) The Chemistry of the Thyroid Gland, and the Nature of its Active Ingredient; (2) The Chloride Excretion in Pneumonia.

35*** Claude Buchanan Ker, England, M.B., C.M., 1890. The General Treatment of Enteric Fever.

James Lawson - Williams, Scotland, M.B., C.M., 1890. Some Practical Observations on the Management of Obstetric Cases, with notes from a record of 500 Consecutive Cases of Labour.

* Thomas Arthur Leishman, Scotland, M.B., C.M., 1885. The Pancreas, with an Outline of the General Symptoms, Diagnosis, and Treatment of Cancerous and Cystic Diseases of the Gland.

Thomas Malcolm Murray Lyon, Scotland, M.B., C.M., 1883. Infantile Mortality, Hygiene, and Feeding.

Donald Gregor MacArthur, Scotland, M.B., C.M., 1894. An Enquiry into an Epidemic of Typhoid Fever, with Special Reference to its Causation and the Methods adopted to prevent its Recurrence.

40* John M'Clymont, Scotland, M.B., C.M., 1892. Acute Rheumatism — its Ætiology and Affinities.

* William Bertie Mackay, Scotland, M.B., C.M., 1884. Acute Inflammation of the Middle Ear, in General Practice.

James Garvie M'Naughton, Scotland, M.B., C.M.,

1893. Joint Affections in Scarlet Fever.

*** John Macpherson, Scotland, M.B., C.M., 1882. The Systematised Insanity of Persecution, with an Analysis of its Elements, and a Consideration of its Pathological and Medico-Legal Aspects.

Frederic Rowland Mallett, England, M.B., C.M., 1891. Chorea Minor.

45 Thomas Graham Mathews, England, M.B., C.M., 1891. Goître: A Critical Essay on the Subject of Non-malignant Bronchocele, with Special Reference to its Ætiology and Treatment.

* James Crauford Maxwell (M.A.), Scotland, M.B., C.M., 1893. Notes on some Cases of Fracture.

* Charles Killick Millard, England, M.B., C.M., 1892. Clinical Notes on Small-pox.

*** Thomas Hugh Milroy, Scotland, M.B., C.M., 1891. Studies in the Chemistry of the Animal Cell, especially with Reference to the Nucleins and Paranucleins.

Thomas Howard Morgan, Wales, M.B., C.M., 1888. Studies in Abdominal Surgery.

50 Taraveth Madowen Nair, India, M.B., C.M., 1894. The Diagnosis of Chronic Empyema of the Antrum of Highmore.

* John Orr, Scotland, M.B., C.M., 1891. Sarcoma of the Eye and Orbit.

George Chapman Steele Perkins, M.B., C.M., 1881. A new pair of Midwifery Forceps, and a new and simple form of Obstetric Binder.

Samuel Willis Prowse (B.A.), Canada, M.B., C.M., 1893. Pregnancy as a Complication of Enteric Fever.

Benjamin William Quartey-Papafio, Gold Coast, M.B., C.M., 1886. Malarial Hæmoglobinuric Fever.

55 Joseph Ernest Rogers, New Zealand, M.B., C.M., 1893. Diabetes Mellitus, its Pathology, Complications, and Treatment.

James Corrigall Rossie, Scotland, M.B., C.M., 1891. Lavage of the Stomach as a Method of Treatment in Disordered Digestion.

* Robert Dawson Rudolf, Canada, M.B., C.M., 1889. Some Notes on the use of Hydrochloride of Phenocoll in the Treatment of Malarial Fever.

* George Calrow Sandford, England, M.B., C.M., 1893. Eclampsia Puerperalis.

* Herman Schmitz, England, M.B., C.M., 1893. Nervous Cases.

60* John Gordon Sharp, Scotland, M.B., C.M. 1892. Diphtheria, with Cases and Historical and Experimental Notes.

* Frederick Macpherson Traill

Skae, Scotland, M.B., C.M., 1890. Hysteria.

John Prince Stallard, England, M.B., C.M., 1881. Pental: Its Administration and Action as an Anæsthetic in Dental Surgery.

* William James Johnstone Stewart, Scotland, M.B., C.M., 1891. Serum Therapeutics in Diphtheria.

Walter Russell Strapp, Natal, M.B., C.M., 1894. Clinical Observations on Infantile Diarrhœa.

65* Arthur Hope Taylor, England, M.B., C.M., 1886. Progressive Pernicious Anæmia.

** David Duncan Tindal, Scotland, M.B., C.M., 1891. A Clinical Account of Enteric Fever and its Complications, with special reference to its Antiseptic Treatment.

* John Kay, Tomory, Scotland, M.B., C.M., 1886. The Treatment of Pulmonary Tuberculosis by Creosote and Allied Substances: a short study in Clinical Therapeutics.

* Arthur John Wallace, England, M.B., C.M., 1889. The Behaviour of Free Bodies and Particles in the Peritoneal Cavity, with special reference to the influence exerted by the movements of the Diaphragm upon small Particles: an experimental inquiry.

David Henry Walsh, England, M.B., C.M., 1891. Excretory Irritation as a Factor in certain Skin and other Organic Inflammations.

70 James Kenneth Watson, England, M.B., C.M., 1892. The Etiology, Pathology, and Clinical Significance of Albumosuria and Peptonuria.

Edward Croft Watts, England, M.B., C.M., 1894. Epithelioma of the Lips.

Alfred John Wheatley, England, M.B., C.M., 1892. Influenza: its Clinical History, Pathology, and Treatment, with Cases specially illustrating the Connection of this Disease with Pneumonia.

** George Wilkinson, England, M.B., C.M., 1889. Leucocytosis and the Effect of Drugs on the Leucocytes of the Intra-vascular Blood.

*** George Robert Wilson, Scotland, M.B., C.M., 1889. Insane Modes of Speech, with special reference to the Physiology of Mental Processes.

75 John Clark Wilson, Scotland, M.B., C.M., 1892. Spasmodic Stricture of the Œsophagus: its Etiology and Prognosis.

* William Cheyne Wilson, England, M.B., C.M., 1886. Hypnotics: with special reference to those of Modern Introduction.

GRADUATES (M.B., C.M.) WHO HAVE PASSED THE EXAMINATIONS WITH HONOURS FROM 1889 TO 1896, BOTH YEARS INCLUDED. [1]

1889.

Class I.

Robert Oswald Adamson (M.A.), Scotland
John William Crerar, Scotland
William Fred. Farquharson, Scot.
James Lackie, Scotland
Jas. Hill Williamson Laing (M.A., B.Sc.), Scotland
Hamilton Graham Langwill, Scot.
Alexander Maclean, Scotland
Eustace G. Pilgrim, Barbados
Wm. Gordon Woodrow Sanders, Scotland
James Andrew Thyne, Scotland
George Wilkinson, England

Class II.

Robert Dunlop Reid Allison, Scot.
William Everett, England
George Alfred Walter, England
Colin Gordon, England
Ewan John Maclean, Wales
James Monteith, Scotland
Benjamin Sweeten, Scotland
C. N. C. Wimberley, Scotland

1890.

Class I.

Charles James Whitehead Dixon, England
Carstairs Cumming Douglas, Scot.
Gerald Fitzgerald, Scotland
Robert Main Horne, Scotland
Colin Forbes Lees, Scotland
William Paterson, Scotland
George William Thompson, La Plata
William Kerr Walker, Scotland

Class II.

Ed. H. Alexander, New Zealand
Robert Brown, Scotland
John Wheeler Dowden, Ireland
George Balfour Marshall, Scotland
Arnold W. Williams, England

1891.

Class I.

John Wardle Bone, England
Wm. Blackley Drummond, Scot.
George Elder, Scotland
Edward Barnard Fuller, Africa
Henry Baker Hall, England
George Hennan, Scotland
Herbert Saunders Wansbrough Jones (B.Sc.), Wales
Harry Rainy (M.A.), Scotland

Class II.

Robt. J. Ashton (B.A.), England
Robert Cran, Scotland
Frederich Wilhelm Eurich, Saxony
David J. Mackenzie (M.A.), Scot.
John Orr, Scotland
David Stuart, Scotland
Wm. J. Walker (B.A.), Australia
Neish Park Watt (M.A.), Scotland
John Thos. Wilson, Tasmania

1892.

Class I.

Alexander Brownlie, Scotland
Charles Cromhall Easterbrook, (M.A.), England
George Home, New Zealand
Lim Boon Keng, Singapore
Robert Murray Leslie (M.A., B.Sc.), Scotland
Donald Macaulay (M.A.), Scot.

Class II.

Alexander Douglas (M.A.), Eng.
Daniel Charles Edington, Scot.
John James Evans, Wales
Arthur Fells, England
James Stewart Fowler, Scotland

[1] For names of those who received the Degrees with Honours prior to 1889, see Historical Appendix to List of Graduates of the University, published in 1889, pp. 129-132

Robert Walker Gray, Scotland
Robert John Johnston, Scotland
Geo. Wm. F. Macnaughton, Scot.
Philip Oscar Malabre, Jamaica
Peter William Shaw, Scotland
Alfred George Talbot (B.A.), New Zealand
George Templeton, Scotland

1893.

Class I.

Charles Crerar, Scotland
John Buchanan Duff, Scotland
Alex. M. Easterbrook, Scotland
Wm. E. Fothergill (M.A., B.Sc.), England
Robert Hutchison, Scotland
Robert H. Makgill, Scotland
Jas. V. Paterson, M.A., Scotland
David W. Sutherland, Australia
Hugh Walker (M.A.), Scotland
D. A. Welsh (M.A.), Scotland

Class II.

William Randolph Center, Scot.
Robert Craig Dun, Scotland
George Harry Dupont, England
Charles Alfred Hogg, Tasmania
Charles Kerr, Scotland
James G. Macnaughton, Scotland
W. M'D. Selby, Scotland
St John Stanwell, England
John Steed, England
John Tennant (M.A.), Scotland
John Brown Yeoman, Scotland

1894.

Class I.

James Martin Beattie (M.A.), New Zealand
Evan John Hewat Fraser, England
George Brooke French, England
Thomas Gibson (M.A.), Ireland
John Rutherford Gilmour, Scotland
Neil MacVicar, Scotland
William Anderson Stephen (M.A.), Scotland
James Purves Stewart (M.A.), Scotland

Class II.

Robert William Beesley, England
Robert Ward Briggs, England
Alexander Keith Campbell, Scot.
Thomas H. C. Derham, England
Charles Francis Lassalle, W. Indies
James Donald Macrae, Scotland
Hezlett Hamilton Marshall, Australia
Arthur Maxwell Nicholson Pringle, Scotland
Walter Russell Strapp, Natal

1895.

Class I.

Joseph Edward Bowes, England
John Forbes (M.A.), Scotland
William John Garbutt, England
Rhodes Haygarth, England
Andrew Robertson Wilson (M.A.), Scotland
William De Wever Wishart, British Guiana

Class II.

James Gray, Scotland
Albert Lewis Husband, England
Robert MacWilliam Leith, Cape Colony
William Lillie, India
David Rankine (M.A.), Scotland
David Waterston (M.A.), Scotland
James Rodger Watson (M.A., B.Sc.), Scotland

1896.

Class I.

William Haining Carse, Scotland
John Eason, Scotland
Percy James Henderson, Scotland
Percy Theodore Herring, England
John George Patrick Murray, England
Alexander Corsar Sturrock (M.A.), Scotland

Class II.

John Thomas Hewetson, England
Alexander Petrie Lowe, Scotland
Arthur David Yule, Scotland

Bachelors of Medicine and Masters in Surgery.

1st August 1896.

Small CAPITALS *indicate First-Class Honours.*

Italics, Second-Class Honours.

Dugald Nairne Anderson, India
James Anderson, Scotland
Eustace Arkwright, England
John Ballantyne, Scotland
James Bannerman, England
Alexander Baxter, Scotland
John Evans Hadden Bennett, Ireland
Robert Bennie (M.A.), Scotland
Louis Francois Benjamin Biccard, South Africa
James Brunton Blaikie, Scotland
Frederick John Campbell Young Botha, South Africa
Charles Allan Bowker, England
Edwin Bramwell, England
William Henry Brendon (B.Sc.), England
Daniel Brough, Scotland
George Scott Brown, Scotland
Henry Grey Brown, Scotland
Christoffel Albertyn Brugman, South Africa
Walter James Buchanan, Burma
William Buchanan, New Zealand
Thomas Marshall Callender, Scotland
Archibald Fawns Cameron (M.A.), Scotland
James Currie Baxter Carruthers, Scotland
William Haining Carse, Scotland
Horace Crakanthorp Colman, England
Matthew Corry, Ireland
Cecil Burleigh Crampton, England
Edward Crarer, Scotland
James Davidson, England
Priyanath Deb, India
Hugh Dewar, Scotland
Mohan Lal Dhingra, India
Arthur Dickson, Scotland
Joseph Dorman, Ireland
Hugh Douglas, Scotland
Charles William Eames, England
John Eason, Scotland
Alexander Henry Edwards, Scotland
Louis Charles Edwards, Wales
William John Adams Erskine, Scotland
Alfred Watkis Roby Fletcher (B.Sc.), Australia
William Charles Hugham Forster, England
José Manuel de Freitas, British Guiana
Robert Gardner, Scotland
Alexandra Mary Campbell Geddes, Scotland
William Graham Crichton Geikie (M.A.), Scotland
Mohomad Abdul Ghany, India
Wilfred Ernest Gibbons, England
Charles Francis Giddy, England

David Dryburgh Gold, Scotland
Thomas Grainger, England
Louis Grant (M.A.), Scotland
Alan Young Greenwood, England
Norman Gunn, Scotland
Robert Mills Hall, England
Francis Alexander Hardy, England
PERCY JAMES HENDERSON, Scotland
PERCY THEODORE HERRING, England
John Thomas Hewetson, England
Lionel Watson Hignett
Richard Percy Hill, Australia
William Hugh Hill, Scotland
Walter John Henry Hislop, New Zealand
John Francis Holden, England
Robert Kenyon Howden, Natal
John Arnold Hunter, Ireland
Donald Henry Hutchinson, England
Mowbray Jackson, Scotland
Walter Jagger, England
Charles Harold Johnson, Australia
Thomas Fair Johnston, Scotland
Henry Irvine Jones, Wales
George King, Scotland
Robert Welland Knox, Scotland
Carel Hendrik Kruger, South Africa
Charles Dickson Lander, India
George Lawrence, Scotland
James Louden Leadbetter, Scotland
James Lee, Ireland
James Fisher Lindsay, Scotland
Basil Lockhart Livingstone-Learmonth, Scotland
Thomas Valiant Lockhart-Mure, Scotland
Ralph Edward Loney, Scotland
John Robert Lord, England
Alexander Petrie Low, Scotland
Alfred Lees Low, Scotland
James Doig M'Crindle, Scotland
Stuart M'Donald, Scotland
Jessie MacLaren MacGregor, Scotland
George Wishart M'Intosh, Scotland
George M'Kellar, Scotland
John Macmillan, Scotland
Sreenagula Mallannah, India
James Leslie Marjoribanks, Scotland
Joseph Mason, England
Frederick Hallard Merry, Scotland
Robert Alexander Milne, Scotland
William Morrison Milne (M.A.), Scotland
John Alexander Milroy (M.A.), Scotland
Hugh Murray Morton, England
Owen St John Moses, Armenia
William Mowat, Scotland
John Muir, Scotland
JOHN GEORGE PATRICK MURRAY, England
Albert John Orchard, New Zealand
William David Osler, Scotland
James Patton, Ireland

John Peter Peterson, Australia
Cyril Hamilton Phillips, Barbadoes
Ernest Edward Porritt, New Zealand
Frederic Porter, Scotland
James Prentice, (M.A.), Scotland
William Henry Pritchard, Wales
William Lewis Pritchard, Wales
Frederic Maurice Purchas, New Zealand
Oswald Raitt, Scotland
Robert Gow Ralston, Scotland
John Arthur Rees, Wales
Joseph Henry Reynolds, England
John Richards, Wales
William Thomas Ritchie, Scotland
William Hunter Robb, Scotland
Norman Hamilton Ross, India
David Richard Rowlands, Wales
John Hilary Seon, Trinidad
John Thomson Shirlaw, Scotland
John William Simpson, Scotland
William Alfred Skinner, Scotland
George Smith Small, Scotland
Francis Osmond de Souza, Straits Settlements
John Stevenson, New Zealand
John Stoddart, England
Alexander Corsar Sturrock, (M.A.), Scotland
Henry Young Taylor, Scotland
Herbert Francis Lechmere Taylor, Scotland
Daniel Gilbert Miller Teague, Australia
Henry Turakina Joynt Thacker (B.A.), New Zealand
Alfred George Patrick Thomson, Scotland
Richard Hensleigh Walter, England
Henry George Waugh, Australia
Gilbert Aitkin Welsh, Scotland
James Hunter White, Scotland
George Francis Whyte, Scotland
Percy William Wilkinson, England
Frank Mayes Willcox, Australia
Thomas Forcer Williams, Wales
Thomas Alfred Williams Scotland
Edward Ferris Wills, Madagascar
John Wilson, England
William Wilson Wood, Scotland
William Alexander Young, Scotland

24th October 1896.

Hugh de Maine Alexander, Scotland
John Anderson, Scotland
William Anderson, New Zealand
John George Bailey, England
Andrew Buchanan Blair, Scotland
Albert William Bowie, Scotland

Andrew Gray Carment, India
Henry Oliphant Dougall, Scotland
Charles Carmichael Forrester, Scotland
Robert M'Lean Gibson, Scotland
William Torrey Grant, Egypt
Samuel Jack O'Laughlin Grinsell, England
Wallace Tynemouth Hedley, England
Archer Hosking, New Zealand
Robert Irvine, Ireland
Thomas Johnstone, England
Arthur Lloyd Jones, Wales
George Henry List, Scotland
Marcus MacKenzie, B.A., Ireland
Robert Lyle MacKirdy, M.A., Scotland
John MacMaster, Australia
John Duncan Graham Macpherson, India
Noel Maudsley, England
Bomansha Nusserwanji Mullan, India
Bahadhur Kaikhushro Nariman, India
Herbert Peck, England
William James Penfold, England
Charles Porter, Scotland
Charles William Reid, Australia
Andrew Rutherfurd, Scotland
Gerald Alick Southwell Sander, France
Arthur Ernest Scott, Australia
George Broadfoot Serle, Scotland
Harry Wilmot Smith, India (*in absentiâ*)
John Fletcher Strickland, England
Geoffrey Clive Taylor, England
Arthur Edward White, England
Alfred Ernest Williams, England
Frederick Wilson, Scotland
James Francis Wolfe, Ireland
Robert Steele Young, Ireland
Arthur David Yule, Scotland (with Second-Class Honours)

10TH APRIL 1897.

Alexander Moir Rattray
James Trevor Williams

Fellowships, Scholarships, Bursaries, and Prizes in Medicine.

I.—FELLOWSHIPS.

I.—THE SYME SURGICAL FELLOWSHIP.

This Fellowship, of the annual value of £100, 5s. 10d., and tenable for two years, is open to competition among Bachelors of Medicine and Masters in Surgery of not more than three years' standing, who, in the opinion of the Examiners, have passed a creditable examination for these degrees, and presents the best Thesis on a Surgical subject giving evidence of original research, or practical talent, whether such Thesis be given in for Graduation or otherwise. The next award may be at the Graduation Ceremonial in August 1899. *See* Deed of Foundation, at p. 310 of CALENDAR for 1872-73.

1895. Not awarded.

II. THE GOODSIR MEMORIAL FELLOWSHIP.

This Fellowship was founded in 1872 by the subscribers to the fund for a memorial of the late Professor John Goodsir, and is for the encouragement of the study of Anatomy and Physiology. It is of the annual value of £100, tenable for two years, and is open to all Graduates in Medicine of the University of not more than three years' standing at the time of the competition, and to Licentiates of the Colleges of Physicians or Surgeons of Edinburgh of a like standing, who have attended within the University the same number of classes as are required for the Degree of M.B. It is awarded for the best Essay or Treatise containing results of original investigations in Anatomy, Human and Comparative, either Normal or Pathological, or in Experimental Physiology; Candidates may be examined *viva voce* or otherwise on the subject of their Essays or Treatises if the Examiners shall deem this desirable.

The next award may be made in August 1899, and competing Dissertations must be lodged with the Professor of Anatomy not later than the 30th April previously. *See* Deed of Foundation at p. 314 of CALENDAR for 1872-73.

III.—THE LECKIE-MACTIER FELLOWSHIP.

The Leckie-Mactier Fellowship, of the annual value of £80, is awarded to Bachelors of Medicine of not more than three years' standing, and is tenable for three years. The examinations comprise written reports and commentaries on medical, surgical, and gynecological cases in the University Wards in the Royal Infirmary, and written examinations in Midwifery, Medical Jurisprudence, and Public

Health; also oral examinations in Medicine, Surgery, Midwifery, Medical Jurisprudence, and Public Health. Every holder of the Fellowship must, before the expiry of his tenure, transmit to, and if required read publicly in presence of the Medical Faculty, a communication embodying the result of original observation or historical research in some department of medicine. Next appointment may be made in November 1898. *See* Deed of Foundation at p. 365 of CALENDAR for 1880-81.

1895. *Robert Hutchison, M.B., C.M.*

IV. FREELAND BARBOUR FELLOWSHIP.

This Fellowship is of the value of £100, and is open to award, in each alternate year, to the Bachelor of Medicine and Bachelor of Surgery who has gained the highest collective marks in Anatomy, Physiology, and Pathology in the Professional Examinations, and who is prepared to devote not less than one year to original research in Midwifery or diseases of women, in any of the Laboratories or Practical Departments of the University of Edinburgh. The next award will be made in July 1898. *See* Deed of Foundation at page 517 of CALENDAR for 1889-90.

1896. *W. H. Carse, M.B., C.M.*

THE WILLIAM DICKSON TRAVELLING FUND.

This is a fund for the purpose of assisting Graduates of any Faculty, of not more than three years' standing, to travel for the purpose of study or research. For particulars, see page 178.

THE EARL OF MORAY'S BEQUEST FOR THE PROMOTION OF ORIGINAL RESEARCH.

All Graduates and other Members of the University, "or other persons who have given satisfactory proof of General Education and fitness to engage in some special study or research," may apply for grants from this fund. In so far as the subject of the Research admits, the investigation shall be conducted in the Buildings of the University. *See* Regulations, page 428 of CALENDAR for 1897-98.

THE SWINEY LECTURESHIP ON GEOLOGY.

This Lectureship is in the patronage of the Trustees of the British Museum, is of the annual value of £144, and is open to Graduates in any of the Faculties of this University who have obtained their Degrees after Examination. For further particulars, see page 259.

II.—SCHOLARSHIPS.

I.—ETTLES SCHOLARSHIP IN MEDICINE.

This Scholarship was founded in 1868 by Miss Mary Ettles of Inverness, and is of the annual value of about £31, 5s. It is awarded

annually to the Bachelor of Medicine and Master in Surgery of the University of Edinburgh, whom the Faculty of Medicine may consider the most distinguished of that year. *See* Deed of Foundation, at page 242 of CALENDAR for 1868-69.

1896. *Percy James Henderson, M.B., C.M.*

II.—SIBBALD MEDICAL SCHOLARSHIP.

This Scholarship is of the annual value of £40. *First,* The Scholarship is bestowed on, and held by, a Student in the Faculty of Medicine in the University of Edinburgh, *who does not hold any other Scholarship or Bursary*, and is tenable for three years, during each year the Scholar must complete an *Annus Medicus* required from Candidates for the degree of Bachelor of Medicine. *Second,* It is bestowed upon the Student obtaining the highest place by Competitive Examination, and is open to all Candidates who have not previously been Students of Medicine in any other School or University, and who have attended Medical Classes in the University of Edinburgh, for *not less* than one Winter and one Summer Session, and for *not more* than one Winter and two Summer Sessions. The Competitive Examination is in Chemistry, Botany, Natural History, and Physics, and is conducted in such manner as the Senatus Academicus may, in concurrence with the Trustees, prescribe. The next competition may take place in October 1897. Application to be made to Messrs MACKENZIE, INNES & LOGAN, W.S., 23 Queen Street, Edinburgh.

1894. *D. B. Waters.*

III.—THOMSON SCHOLARSHIP.

The Thomson Scholarship, value £40, tenable for four years, open to matriculated students commencing their first Winter Session in Medicine. The examination is on Botany, Zoology, and Elementary Mechanics. The Scholarship is awarded to the candidate who shall obtain the highest number of marks in the examination. The Trustees, however, reserve power to themselves to withhold the appointment should none of the candidates obtain a sufficiently high percentage of the marks in the examination. Candidates must send in their names to the agents for the Trust before the first day of October in the year in which there is a competition for the Scholarship. Students of the name of Thomson or Traquair, or those who are natives of the town or county of Dumfries, or of the city of Edinburgh, have a preference. The next appointment may be made in October 1898. For other particulars, application to be made to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh.

1894. *James Masson.*

IV.—COLDSTREAM MEMORIAL MEDICAL MISSIONARY SCHOLARSHIP.

The Coldstream Memorial Medical Missionary Scholarship was founded in memory of the deceased John Coldstream, M.D., F.R.C.P.E. Value £25, and tenable for five years. The holder must be a first year's Medical Student, who intends to devote himself to the life of a Medical Missionary at home or abroad. He must be approved of by the awarders, and pass the preliminary examination before beginning his studies. Next award may be in 1901. A preference is given to students connected with the Edinburgh Medical Missionary Society. A full copy of the conditions can be had on applying to John P. Coldstream, W.S., care of Messrs Mill, Bonar & Hunter, W.S., 15 Hill Street, Edinburgh. *See* Conditions in CALENDAR for 1879-80, p. 357.

1896. *John Alfred Smith.*

V.-XI.—VANS DUNLOP SCHOLARSHIPS.

Seven Scholarships, of £100 each, tenable for three years. Not more than one at a time can be held by the same person. The successful candidates for each of these Scholarships will be required to continue their medical studies in this University during their tenure of their Scholarships, and to graduate as M.B. and Ch.B. *See* Excerpt from Will of Dr Vans Dunlop, p. 380 of CALENDAR for 1880-81.

V. *One* is awarded to the Candidate who, at either the March or the preceding October Medical Preliminary Examination, has obtained the highest number of marks in the Subjects required to enable him to appear for a Professional Examination, provided (1) that he has not already passed the said Preliminary Examination; and (2) that, in the event of his having passed an equivalent examination and presenting himself for the Medical Preliminary Examination, he shall waive all right to admission to the Faculty of Medicine except through the ordinary Medical Preliminary Examination of this University. The next award may be made in March 1899.

1896. *James G. S. Jamieson* } equal.
,, *Andrew Hunter* }

VI. *One* is awarded at the end of the First Winter of Medical Study to the Student who, after having attended for the first time within the University a Systematic Course of Lectures on each of the subjects of Chemistry, Anatomy, and Physics, and who has not previously attended any course in Chemistry, or Anatomy, or Physics, which qualifies for Degrees in Medicine, or for a Licence in Medicine or Surgery, shall obtain the highest number of marks in an Examination in these subjects, specially conducted for the purpose. The Subjects of Examination in Anatomy will include the Skeleton; Joints; Muscular System; Heart and Great Vessels; General Arrangement of the Nervous System;

Position of the Thoracic and Abdominal Viscera. The next award may be made at the end of March 1899.

1896. *George H. Hanna* } equal.
,, *Aleck Trotter* }

VII. *One* is awarded at the end of the first Summer Session of Medical Study to the Student who, after having attended for the first time within this University a Systematic Course of Lectures on each of the subjects of Botany and Zoology, and who has not previously attended any course in Botany or Zoology which qualifies for Degrees in Medicine, or for a Licence in Medicine or Surgery, shall obtain the highest number of marks in an Examination in these subjects specially conducted for the purpose. The next award may be made at the end of July 1899.

1896. *George Scott Carmichael.*

VIII. *One* is awarded at the end of the Second Winter of Medical Study to the Student who, after having attended within the University for the first time a Systematic Course in each of the subjects of Physiology and Surgery, and who has not previously attended a Course of Physiology or Surgery which qualifies for Degrees in Medicine, or for a Licence in Medicine or Surgery, shall obtain the highest number of marks in an Examination in the subjects specially conducted for the purpose. The Subjects of the Examination in Physiology will embrace the Histology and Physiology of the Simple Tissues, and of the Organs concerned in Nutrition. The whole subject of Nutrition will be included, and also Animal Heat. The next award may be made at the end of March 1899.

1896. *William John Barclay.*

IX. *One* at the beginning of the Fourth Winter Session of Medical Study to the Student who, after having attended within the University the Systematic and Practical Instruction in the subjects of Anatomy and Physiology, and, having passed the Second Professional Examination, shall obtain the highest number of marks in an Examination in the subjects specially conducted for this purpose. The successful Candidate will be required to continue his studies in this University during the first two years of his tenure of the Scholarship, and at the end of the second year to graduate as M.B. and Ch.B. ; and during the remaining year to prosecute original investigation in one or other of the Research Laboratories in the Faculty of Medicine. The next award may be made in October 1899.

1896. *George Lyon.*

X. *One* at the beginning of the Fourth Winter Session of Medical Study to the Student who, after having attended within the University a Systematic Course in the Subject of Materia Medica (including Pharmacology), and, having passed the Second Professional Examination, shall obtain the highest number of marks in an Examination in that subject specially

conducted for the purpose. The successful Candidate will be required to continue his studies in this University during at least two years of his tenure of the Scholarship, and at the end of the second year to graduate as M.B. and Ch.B.; and during the remainder of his tenure of the Scholarship to devote himself to original investigation in the Materia Medica Laboratory in the Faculty of Medicine. The next award may be made in January 1900.

1896. *D. B. Waters.*
Prox. access., A. C. M'Gilchrist.

XI. *One* to be awarded at the beginning of the Fifth Winter Session of Medical Study, to the Student who, after having attended within the University, the Systematic and Practical Courses in Pathology and the Systematic Courses in Medical Jurisprudence and Public Health, and having passed the third Professional Examination, shall obtain the highest number of marks in an Examination in these subjects specially conducted for the purpose. The successful Candidate will be required to continue his studies and graduate as M.B. and Ch.B. in this University, during the first year of his tenure of the Scholarship, and to devote himself during the remainder of his tenure to original investigation in one or other of the Research Laboratories in the Faculty of Medicine. The next award may be made in October 1899.

1896. *John Malcolm.*

XII.—THE MURCHISON MEMORIAL SCHOLARSHIP.

This Scholarship consists of the annual proceeds of about £1000, awarded in alternate years in London and Edinburgh, for proficiency in Clinical Medicine. Candidates must be registered medical students who have attended for not less than five nor more than seven years at Hospitals and Classes at Edinburgh or London, recognised by the University of Edinburgh or the Royal College of Physicians of London. The competition in 1898 will be held in London.

1896. *Sinclair Gillies, M.D.* (*Lond.*).

XIII.—STARK SCHOLARSHIP IN CLINICAL MEDICINE.

This Scholarship of £112, less expenses, and tenable for one year, is for the encouragement of the study of Clinical Medicine. It is open to competition among all matriculated students of the University who are or have been in attendance at the University Class of Clinical Medicine, and to Bachelors of Medicine of the University of not more than eighteen months' standing who have attended this class. It is open every second year alternately with the competition in Edinburgh for the Murchison Memorial Scholarship. The Examination, oral and in writing, includes (*a*) Examination of Patients; (*b*) Questions on Therapeutics and Pathology; (*c*) Examination of Specimens. Each holder of the Scholarship is required to devote his time in the wards of the Professors of Clinical Medicine

to original investigation or other work directly connected with Clinical Medicine; to report his proceedings every three months to the Professors of Clinical Medicine; and, within a reasonable time after the expiry of his tenure of the Scholarship, to present to the Faculty of Medicine a written statement of the results of his investigations or other work. It cannot be held along with any other Fellowship, Scholarship, or Bursary in a Scottish University. The next Competition will take place in July 1898. *See* Deed of Foundation at p. 427 of CALENDAR for 1884-85.

1896. *John Forbes, M.A., M.B., C.M.*

XIV.—BUCHANAN SCHOLARSHIP.

This Scholarship, of the value of about £40, 10s., founded by Mrs Jane Jack or Buchanan, Moray Place, Edinburgh, is awarded annually to the Graduate in Medicine of the year who has shown the highest proficiency in Midwifery and Gynecology, as evidenced in (1) the Class Examinations of Midwifery and Diseases of Women and Children; (2) the Records kept by him of cases treated in the Gynecological Section of the University Class of Clinical Medicine in the Buchanan Ward of the Royal Infirmary, and (3) the Final Examination in Medicine for the Degree of M.B. The Scholar is required to act as non-resident Clinical Clerk in the University Gynecological Ward, and to give assistance in the Examination of Class Exercises. *See* Deed of Foundation, p. 707 of CALENDAR for 1894-95.

1896. *Lewis Grant, M.A., M.B., C.M.*

XV.—THE JAMES SCOTT SCHOLARSHIP.

This Scholarship, founded by Mrs Mary Ann Scott or Thomson of Hawick, of the value of £42, 10s., is awarded annually at the Graduation Ceremonial in Medicine in August for proficiency in Midwifery. The award is based upon the results of the Competitive Examinations in the Class of Midwifery, upon the character of the records of Cases of Midwifery attended by the Candidate at the Royal Maternity and Simpson Memorial Hospital, and upon the position obtained by him at the Final Examination for Degrees in Medicine. The Scholarship is for one year, but may, in special circumstances, be continued for another year. *See* Deed of Foundation, p. 410 of CALENDAR for 1883-84.

1896. *Thomas Marshall Callender, M.B., C.M.*

XVI., XVII.—HOPE PRIZE SCHOLARSHIPS.

Two Hope Prize Scholarships in Chemistry, each of the annual value of about £30. For particulars, *see* under Scholarships in Science.

XVIII.—THE MOUAT SCHOLARSHIP IN THE PRACTICE OF PHYSICS.

This Scholarship, which will consist of the annual proceeds of about £1500 given by Frederick John Mouat, M.D., of the Local

Government Board, London, formerly Professor of Medical Jurisprudence in the University of Calcutta, has been founded in connection with the class of Practice of Physic, but is not to be open for competition until the death of two liferenters.

XIX.—MACKAY SMITH SCHOLARSHIP IN CHEMISTRY.

This Scholarship is of the annual value of £25, tenable for two years, and is open for competition to Students who have attended the Class of Chemistry in this University. The successful Candidate is bound to attend the Class of Chemistry, or to prosecute the study of Chemistry in the University during at least one year of his tenure of the Scholarship, in such way as the Senatus Academicus may direct or approve. The next Examination will take place in March 1898.

1896. *J. H. H. Pirie.*

XX.-XXIII.—CRICHTON SCHOLARSHIPS FOR RESEARCH.

Four Scholarships, each of the value of £100, tenable for one year, with power of re-appointment for a second and for a third year, are open in rotation in the subjects of Anatomy, Physiology, Materia Medica, and Pathology, for the prosecution of Research by Graduates who have been Students of this University for not less than four years. The Scholarships in Anatomy and Physiology may be open in 1897-98. Candidates are required to submit a sufficient description of the work they propose to undertake to the Dean of the Faculty of Medicine on or before 1st September. The Examination is both written and practical, bearing on Research Work. See Regulations, page 750 of CALENDAR for 1895-96.

1896. No awards in Materia Medica or Pathology.

XXIV.—HOULDSWORTH SCHOLARSHIP.

This Scholarship, founded by the Houldsworth Trustees for the purpose of promoting Research in Pharmacology in the Department of Materia Medica in the University, is of the annual value of about £45, and tenable for one year, with power to re-elect for a second, or even a third year if good work is being done by the scholar. It is awarded to a graduate in, or student of medicine of, the University, after such examination, competitive or otherwise, as may be deemed necessary. The scholar must, during his tenure, produce such evidence of his progress in Pharmacological investigation as may be required by the Professor of Materia Medica. For Deed of Foundation, see page 421 of CALENDAR for 1897-98. The first award may be made in January 1898, the date of the examination to be afterwards announced.

III.—BURSARIES.

No. of Foundation.	Year of Found	Name of Founder.	Total Annual Income.	No. of Bursars.	For Years.	Annual Allowance to each Bursar.	Patrons.
I.	1864	Dr Abercrombie, Cape Town.	£20 0 0	1		£20 0 0	Governors of George Heriot's Trust.
II.	1871	Dr J. R. Sibbald's Trustees.	About £150 0 0	5	3	30 0 0	Trustees of Dr J. R. Sibbald.
III.	1873	Dr Mackie's Trustees.	60 0 0	2	2	30 0 0	Professors of Fac. of Med. in Univ., Edin.
IV.	1873	Mr Grierson of Ogscastle's Trustees.	60 0 0	3 1 1	3 2 1	20 0 0 10 0 0 10 0 0	Senatus.
V.	1878	Dr Andrew Thomson	200 0 0	8	4	25 0 0	Trus. of Dr Thomson.
VI.	1878	William Mackenzie	42 10 0	2	1	20 0 0	Senatus.
VII.	1878	John Aitken Carlyle	56 0 0	2	1	28 0 0	Senatus.
VIII.	1882	Mrs Ronald of Liverpool	80 0 0	2		About 40 0 0	Senatus.
IX.	18—	George Heriot. Remodelled 1887	About 180 0 0	6	4	30 0 0	Governors of George Heriot's Trust.
X.	1890	Major Robert Orr Crichton of Lynn, M.D.	500 0 0	10	4	50 0 0	Senatus Academicus.
XI.	1889	Dr Donald Grant, London.	About 180 0 0	2	4	About 90 0 0	Dr Grant's Trustees.
XII.	1846	John Jamieson, Edinburgh.	26 0 0	1	4	26 0 0	Principal and Two Professors.
XIII.	1883	Wm. Renton, Edinburgh.	19 19 6	1	1	19 19 6	Professors of Mathematics, Natural Philosophy, Chemistry, and Political Economy.
XIV.	1886	Richard Allan, Feuar. Kelso.	90 0 0	3	3	About 30 0 0	Trustees of R. Allan.
XV.	1889	Daniel Maclaurin, London.	62 10 0	1	4	62 10 0	Town Council.

I. *Abercrombie Bursary*—Open by competition, in the event of more than one candidate coming forward, to Students who have been brought up in Heriot's Hospital School, and have finished their course as Heriot Bursars, to aid them in further prosecution of their studies for any of the learned professions. Students in the Faculty of Medicine to be always preferred. Candidates are referred to the Treasurer of the Heriot Trust, 20 York Place, Edinburgh, before 15th September.

II. *Sibbald Bursaries.*—These Bursaries, each tenable for three years, are available to Students in the Faculty of Arts, Medicine, Law, or Divinity, entering the University who have not previously attended any University in the United Kingdom or elsewhere, *and who do not hold any other Bursary or Scholarship,* but no objection to a Candidate that he has, during the previous Summer Session, attended any of the Classes in the University of Edinburgh required by the Faculties of Medicine or Law. The examination is the same as

the Preliminary and Bursary Examination in the Faculty of Arts at the commence ment of each Winter Session. Application to be made to Messrs Mackenzie, Innes & Logan, W.S., 23 Queen Street, Edinburgh, before 15th September.

III. *Mackie Bursaries.*—These Bursaries are awarded to Students of Medicine of the University, one of which is open to Students who have completed their First Annus Medicus, and the other to Students who have completed their Second Annus Medicus, and who are, in the opinion of the Faculty of Medicine, in such pecuniary circumstances as to require assistance. In the event of no appointment having been made to either Bursary on any occasion when it is vacant, the Senatus may, on the recommendation of the Faculty of Medicine, appoint any Candidate to the vacant Bursary who has completed either his first or his second *Annus Medicus* and who otherwise satisfies the requirements of tenure. *Bursars* 1896, *first year*, Robert Affleck ; *second year*, Y. A. Djedizian.

IV. *Grierson Bursaries.*—Candidates from the parishes of Crawford or Leadhills, about to commence their Medical Curriculum, who have passed in the University of Edinburgh a satisfactory examination in the preliminary subjects required by the Regulations for Graduation in Medicine, who have been diligent students, and who require pecuniary aid to enable them to pursue their studies, have a preference. In the case of more candidates than one, the Bursary will be awarded to the best qualified, on examination in the subjects above referred to.

Failing the appointment of preferential candidates, the Bursaries will be tenable for periods of one year only, in manner following, viz. :—*One* will be awarded to the student who, not having completed his twenty-first year, shall pass the best examination in the subjects of the preliminary examination, provided (1) that he has not already passed the said preliminary examination ; and (2) that, in the event of his having passed an equivalent examination and presenting himself for the Medical Preliminary Examination, he shall waive all right to admission to the Faculty of Medicine except through the ordinary Medical Preliminary Examination of this University. *One* will be awarded by competitive examination to the student beginning the Second Winter Session, who having already passed the Preliminary Examination required for Graduation in Medicine, shall pass the best examination in the subjects of Chemistry, Botany, Natural History, and Physics. *One* will be awarded by competitive examination to the student beginning the Third Winter Session who, having already passed the First Professional Examination, shall pass the best examination in the subjects of Anatomy and Physiology. *One* will be awarded by competitive examination in Materia Medica at the beginning of the Fourth Winter Session. *One* will be awarded by competitive examination in Pathology at the beginning of the Fifth Winter Session. *Bursars*—1896, *first year*, *John MacKenzie ; second year*, *Norman Paterson ; third year*, no award ; *fourth year*, *A. C. M'Gilchrist ; fifth year*, *C. M. Cooper.*

V. One *Thomson Bursary* is awarded at each of the Preliminary Examinations held in Spring and Autumn, to the Candidate who, being about to commence his Curriculum, takes the highest place in the Medical Preliminary Examination : provided (1) that he has not already passed the said Preliminary Examination ; and (2) that, in the event of his having passed an equivalent examination and presenting himself for the Medical Preliminary Examination, he shall waive all

right to admission to the Faculty of Medicine except through the ordinary Medical Preliminary Examination of this University. Students of the name of Thomson or Traquair, or those who are natives of the town or county of Dumfries, or of the city of Edinburgh, have a preference. Candidates must enter for the Preliminary Examination before 17th September 1897, and 1st March 1898 for the Autumn and Spring Examinations respectively, and those claiming a preference must intimate their names to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh, the agents for the Trust (from whom further particulars may be obtained), at least one clear week before the Examinations. *Bursars*—1896-97, *G. F. M'Farlan*, *A. G. Martin*.

VI. *Mackenzie Bursaries*, open to Students of Anatomy Classes, of any year, who shall display the greatest industry and skill in Practical Anatomy during the Winter Session. *See* CALENDAR for 1879-80, p. 353. *Bursars*—1897, *H. J. M'Lean* and *A. A. Martin*—equal; *H. M. Speirs* and *G. D. Whyte*—equal.

VII. *John Aitken Carlyle Bursaries*, one is awarded at the end of every Winter Session to a first year Student for proficiency shown in the ordinary class examinations in Anatomy and Chemistry, the other to a second year's Student for proficiency shown in the ordinary class examinations in Anatomy and Physiology. *See* CALENDAR for 1879-80, p. 350. *Bursars*—1897, Senior, *A. A. Martin*; Junior, *A. C. Keay*.

VIII. The *Anderson Bursaries* have been founded by Mrs Ronald of Liverpool, and will come into operation on the death of an annuitant. For Deed of Foundation, *see* CALENDAR 1882-83, p. 396.

IX. The *Heriot Bursaries* are for Students unconnected with the Hospital, entering upon a regular Curriculum with a view to graduation. For remodelled scheme, see CALENDAR, 1887-88, p. 498. For subjects of Examination, &c., see under Bursaries open in Faculty of Arts.

X. *Crichton Bursaries.*—Two of these Bursaries are open annually—one in Autumn and one in Spring—to Students entering the Faculty of Medicine of this University. The subjects of Examination are Latin, Greek, French, German, Mathematics, Logic, and Moral Philosophy. Each Bursary is of the annual value of £50, tenable for four years, provided the Bursars continue Students of the Medical Faculty of this University. *See* Excerpt from Deed, p. 540 of CALENDAR for 1891-92, and Regulations, p. 749 of CALENDAR, for 1895-96. *Bursar*—1896, *J. R. Tannahill*.

XI. The *Grant Mortification* is for Students of the University of Edinburgh, of the name of Grant. The holders may attend the Arts, Medical, Divinity, or Law Classes. Application for information may be made to Messrs Mackenzie, Innes & Logan, W.S., 23 Queen Street, Edinburgh.

XII. The *Jamieson Bursary* is for the benefit of the sons of schoolmasters, farmers, mechanics, and labourers, and other persons born and residing within any one of the following parishes—viz., Crawfordjohn, Crawford, united parishes of Lamington and Wandell, united parishes of Wiston and Roberton, Culter and Biggar. The Bursar may attend Classes in any of the Faculties.

XIII. The *Renton Bursary*, founded by the late William Renton. Candidates must attend one or more of the classes of Natural Philosophy, Mathematics, Chemistry, or Political Economy, and must show that they require pecuniary aid.

It cannot be held by any one under the age of sixteen or above twenty-one, or with another Bursary of the value of £30 or upwards. The Examination is in English and Elementary Mathematics, as for the First Year Open Bursaries in Arts.

XIV. *Allan Bursaries.*—These Bursaries are available to Students attending classes in any of the Faculties of Arts, Science, Medicine, or Law, in the University of Edinburgh, and are tenable for three years or for such part of that period as the Bursar shall remain a Student at the University. In nominating Candidates for presentation to the Bursaries, care will be given to prefer such as have been born in the parish of Kelso, provided they are qualified by their previous education for entering the University. Apply to P. Stormonth Darling, Esq., writer, Kelso.

XV. *Maclaurin Bursary.* This Bursary, tenable for four years, is by the will of the founder to be called the "Maclaurin Bursary," and is restricted to Students of the Founder's name of Maclaurin (or in Gaelic orthography "Maclalhrin"). It may be held in any of the Faculties. *See* Deed of Foundation, p. 544 of CALENDAR for 1890-91.

IV.—PRIZES.

I.—NEIL ARNOTT PRIZE FOR EXPERIMENTAL PHYSICS.

This Prize, of the value of about £37, 10s., presented to the University by Dr Neil Arnott of London, is awarded annually in October to the Candidate who shall pass with the greatest distinction the Ordinary Examination in Natural Philosophy for the Degree of M.A. Candidates must have been Students of Medicine of this University during either a summer or a winter session; and the successful candidate must continue a Student of Medicine at this University during the next Winter Session, failing which, the prize will be forfeited and assigned to the competitor next in merit. No student can appear for examination after the completion of his third *annus medicus;* and no candidate shall be allowed to offer himself more than once.

In the event of a competitor, qualified as above, not coming forward, the prize will be awarded to a Candidate for a Degree in Arts who shall pass with most distinction the ordinary examination in Natural Philosophy. *See* Deed of Foundation at p. 274 of CALENDAR for 1870-71.

1895. *A. C. M'Gilchrist, M.A.*
1896. *A. Hunter*, *W. Mair* } equal.

II.—THE ROBERT WILSON MEMORIAL PRIZE.

This Prize was founded by John Wilson of South Bantaskine, in memory of his son, Robert Wilson, and is of the value of £6, 5s. It is annually awarded at the close of the Winter Session to the student

in the senior Chemistry Class who takes the highest honours. *See* Deed of Foundation at p. 351 of CALENDAR for 1876-77.

1897. *John W. Eastham.*

III.—THE ELLIS PRIZE FOR PHYSIOLOGY.

This Prize consists of the proceeds of a sum of £500 bequeathed by the late Daniel Ellis, Esq., to the Principal and Faculty of Medicine of the University of Edinburgh, accumulated for three or five years. Value about £25 per annum. It is awarded for the best Essay or Treatise on some subject of Animal or Vegetable Physiology proposed by the Faculty for competition to Students or Graduates of not more than five years' standing. The next award may be made in 1898. Subject—"The Functions of Wood." Essays in Competition to be lodged with the Dean of the Faculty of Medicine on or before 30th April 1898.

IV.—PRIZES FOR THESES.

Gold Medals, each of the value of £10, are awarded annually on the day of graduation to Doctors of Medicine whose Theses are deemed worthy of that honour.

V.—THE WIGHTMAN PRIZE IN CLINICAL MEDICINE.

This Prize of £12 was founded by Mrs E. Wightman, in memory of her son, J. T. Wightman, M.B., C.M., and is annually awarded at the close of the Summer Session to the student attending the Class of Clinical Medicine for the best Dissertation on any subject presented by the Faculty of Medicine, or for the best Report and Commentary on cases which have during the previous Winter and Summer Sessions been treated in the University Clinical Wards in the Royal Infirmary. Three months' notice of subject is given by the Faculty of Medicine. *See* Deed of Foundation at p. 348 of CALENDAR for 1876-77.

The Prize, which is open to members of the Clinical Class of either Winter 1897-98 or Summer 1898, will be awarded for the best report and commentary on cases. The Essays to be given in before 6th July.

1896. Not awarded.

VI.—THE BEANEY PRIZE.

This Prize of £32, 10s., was founded in 1878 by James George Beaney, Esq. of Melbourne. It is awarded at the Graduation Ceremonial in Medicine to the Graduate in Medicine and Surgery of the year who, having attended within the University courses on Anatomy, Surgery, and Clinical Surgery qualifying for Graduation, obtains the highest number of marks during his examinations in these subjects for the Degrees of Bachelor of Medicine and Master in Surgery. The Senatus has the power of withholding the Prize in the event of no Student passing the

above examinations with sufficient merit. *See* Deed of Foundation at p. 371 of CALENDAR for 1878-9.

1896. *William Haining Carse, M.B., C.M.*

VII.—THE CAMERON PRIZE.

This Prize was founded in 1878 by the late Dr Andrew Robertson Cameron, of Richmond, New South Wales. It consisted of the annual proceeds of a sum of £2000, to be given annually "to the practitioner or member of the medical profession who shall be adjudged to have made the most valuable addition to Practical Therapeutics during the year preceding, and in determining such question, the word Therapeutics shall be taken in its widest sense as including every agent, or agency capable of influencing the human body in the maintenance or improvement of health, avoidance or cure of diseases, or the alleviation of suffering."

The regulations have been remodelled by the Educational Endowments (Scotland) Commission, and the annual proceeds, which, after defraying the necessary expenses, amount to about £80, may be awarded annually to a person who in the course of the five years immediately preceding has made any highly important and valuable addition to Practical Therapeutics. The Prizeman is required to deliver a lecture or course of lectures on the addition to Practical Therapeutics so made by him, or to publish an account of such addition in such manner as the Senatus may prescribe. The prize will not be awarded if, in the opinion of the Senatus, no addition to Practical Therapeutics has been made within the said period of five years of sufficient importance and value to justify the awarding of the prize. The prize is awarded annually at the Graduation Ceremonial in August. *See* Remodelled Regulations, p. 497 of CALENDAR for 1888-89.

1896. *Professor Macewen.*

VIII.—THE DOBBIE SMITH PRIZE IN BOTANY.

This prize, which consists of a Gold Medal, is open to competition each alternate year to all Matriculated Students of the year of the award, for an Essay on a Botanical subject. The subject of the next competition is an original investigation "On the Structure, Development, and Life History of any British Flowering Plant;" and the memoir is to be accompanied with a series of illustrative specimens. Competing Essays to be sent to the Dean of the Faculty of Medicine on or before 1st July 1899. The prize will be awarded to the successful competitor at the Graduation Ceremony of August 1899.

IX.-XIX.—THE GUNNING VICTORIA JUBILEE PRIZES.

Dr Gunning, of Edinburgh and Rio de Janeiro, has founded Eleven Post-Graduation Prizes of the value of £50 each, viz.:—(1) The Monro prize for Anatomy; (2) The Bell prize for Physiology; (3) The Edward Forbes prize for Zoology, &c.; (4) The

Hutton Balfour prize for Botany; (5) The Joseph Black prize for Chemistry; (6) The Christison prize for Materia Medica; (7) The Lister prize for Surgery; (8) The Gregory prize for Practice of Physic; (9) The John Thomson prize for Pathology; (10) The Simpson prize for Obstetrics; (11) The Alison prize for Medical Jurisprudence and Public Health. Candidates must be either Bachelors of Medicine or Bachelors of Science of this University of not more than three years' standing. The prizes will be awarded with the approval of the Senatus for (1st) either (*a*) Competitive Essays written specially for the prizes, or (*b*) Theses submitted for Graduation; or (2nd) for original research conducted under supervision of the Professor in the department in which the prize is awarded. Two prizes will be awarded annually in the following rotation, viz.:—Botany, Surgery, Pathology, Zoology, Materia Medica, Obstetrics, Public Health and Medical Jurisprudence, Anatomy, and Chemistry, Practice of Physic, Physiology, Competitive Essays are required to be lodged with the Dean of the Faculty of Medicine on or before 30th April of the year in which each prize is to be awarded, and the successful competitors will be announced annually at the Graduation Ceremonial in Medicine.

1896. No award in Anatomy or Chemistry.

XX.—ANDERSON HENRY PRIZE.

The Prize was founded by Isaac Anderson Henry of Woodend, and consists of the proceeds of a sum of £300 accumulated for three years. It is awarded for the best and approved essay on a botanical subject proposed by the Professor of Botany, the Curator of the Royal Botanic Garden, and the President of the Botanical Society of Edinburgh, for competition to students in the Class of Botany in the University of Edinburgh, during any of the three years preceding the date of the award. The next award may be made in August 1898. Competing Essays to be sent to the Dean of the Faculty of Medicine on or before 1st July 1898.

XXI.—MILNER FOTHERGILL MEDAL IN THERAPEUTICS.

This Medal, of the value of about £20, is awarded biennially. It is open for competition to Graduates in Medicine of the University, who have been members of the Class of Materia Medica in the University, for the best essay which shall include a description of original research made by the Candidate on a Pharmacological or Therapeutic subject, preference being given to a subject relating to Dietetics. *See* Deed of Foundation, p. 542 of CALENDAR for 1891-92. The next award may be made at the Graduation Ceremonial in August 1899. Essays to be lodged with the Professor of Materia Medica on or before 30th April 1899.

1895. *Edward Moody Smith, M.D.*

XXII.—PATTISON PRIZE IN CLINICAL SURGERY.

This Prize of about £11, 17s. 6d., is awarded annually to the Student of the University Class of Clinical Surgery who shall write the best Report and Commentary on cases treated in the University Surgical Wards during the Academic Year. The Essays to be given in before 6th July.

FELLOWSHIPS, SCHOLARSHIPS, BURSARIES, AND PRIZES OPEN TO COMPETITION IN THE FACULTY OF MEDICINE IN 1897-98.[1]

For further information, and for information regarding other Scholarships, Fellowships, Bursaries, and Prizes, see above, where full information regarding the conditions of tenure and the values are given.

FELLOWSHIP.

The Freeland Barbour Fellowship (No. IV., page 396). The next award may be made in July 1898. Candidates to give in their names to the Dean of the Faculty of Medicine before 1st July.

SCHOLARSHIPS.

1. *The Stark Scholarship in Clinical Medicine* (No. XIII., page 400). The next competition will take place in July 1898. Names to be given in to the Dean of the Faculty of Medicine before 1st July 1898.

2. *The Murchison Memorial Scholarship* (No. XII., p. 400). The competition is open to Candidates from London and Edinburgh, and in 1898 will take place in London.

3. *The Buchanan Scholarship* (No. XIV., p. 401).

4. *The James Scott Scholarship* (No. XV., p. 401).

5. *The Thomson Scholarship* (No. III., page 397). The next competition will take place in October 1898, on a date to be afterwards announced. For further particulars, apply to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh, the Agents for the Trustees, *before* 20th September.

6. *The Ettles Scholarship in Medicine* (No. I., pp. 396-397).

7, 8. *Two Hope Prize Scholarships* (No. XVI., p. 401).

9, 10. *Two Crichton Scholarships for Research—one* in Anatomy and *one* in Physiology (No. XX., page 402).

11. *The Houldsworth Scholarship* (No. XXIV., page 402. The first competition will take place in January 1898, the date to be afterwards announced. Candidates to give in their names to the Dean of the Faculty of Medicine on or before 17th December 1897.

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[1] *N.B.*—The values of the Fellowships, Scholarships, Bursaries, and Prizes are subject to variation consequent on the rise or fall of the rate of interest, &c No Candidate will be allowed to hold the same Fellowship, Scholarship, Bursary, or Prize more than once.

12. *The Mackay Smith Scholarship in Chemistry* (No. XIX., page 402). The next Examination will take place on 25th March 1898, at 10. Names of Candidates to be entered with the Dean of the Faculty of Medicine on or before 15th March.

BURSARIES.

1, 2. *Two Sibbald Bursaries* (No. II., pp. 403-404).

3, 4. *Two Thomson Bursaries* (No. V., pp. 403-404). Candidates claiming a preference must send their names to Messrs Traquair, Dickson & Maclaren, W.S., 11 Hill Street, Edinburgh, before 15th September, and on or before 18th March.

5-9. *Five Grierson Bursaries* (No. IV., p. 404). *One* in the subjects of the Preliminary Examination; *one* in Chemistry, Botany, Natural History, and Physics; *one* in Anatomy and Physiology; *one* in Materia Medica, and *one* in Pathology. Candidates for the Second, Third, Fourth, and Fifth year Bursaries must also show that they are eligible Candidates. The competition for the Second, Third, Fourth, and Fifth year Bursaries will take place in October 1897, on a date to be afterwards announced. Names of Candidates to be entered on or before 17th September.

10, 11. *Two John Aitken Carlyle Bursaries* (No. VII., p. 405).

12, 13. *Two Mackenzie Bursaries* (No. VI., p. 405).

14. *Renton Bursary* (No. XIII., pp. 405-406). Names of Candidates to be entered at the Secretary's Office, on or before 17th September.

15, 16. *Two Crichton Bursaries* (No. X., p. 405).

Competitors for the above Fellowships, Scholarships, and Bursaries, excepting those awarded for the subjects of Preliminary Examination, must have studied the subjects of Examination at the University of Edinburgh. No Fellowship, Scholarship, or Bursary, with the exception of the Ettles Scholarship, can be held along with any other Fellowship, Scholarship, or Bursary.

PRIZES.

The Medical Faculty Medals.—Gold Medals are given on the day of Graduation to Doctors of Medicine whose Theses are deemed worthy of that honour.

1. *The Neil Arnott Prize* (No. I., page 406).
2. *The Beany Prize* (No. VI., pp. 407-408).
3. *The Cameron Prize* (No. VII., page 408).
4. *The Gunning Victoria Jubilee Prizes in Botany and Surgery* (No. IX., pp. 408-409). Competitive Essays are required to be lodged with the Dean of the Faculty of Medicine on or before 30th April 1898.
5. *The Wightman Prize in Clinical Medicine* (No. V., page 407).
6. *The Pattison Prize in Clinical Surgery* (No. XXII., page 410).

7. *The Anderson Henry Prize* (No. XX., page 409).
8. *The Ellis Prize in Physiology* (No. III., page 407).
9. *The Lord Rector's Prize* (No. II., page 182).
11, 12. *Two Gray Prizes* (Nos. VII. and VIII., page 182).
The William Dickson Travelling Fund (see page 178).
The Earl of Moray Bequest for the Promotion of Original Research.—All Graduates and other Members of the University, "or other persons who have given satisfactory proof of General Education and fitness to engage in some special study or research," may apply for grants from this fund. In so far as the subject of the Research admits, the investigation shall be conducted in the Buildings of the University. *See* Regulations, page 428.

"Bursars in the Faculty of Medicine must annually attend at least two of the Classes necessary for the Degrees of M.B. and Ch.B., and must present themselves at the Examinations necessary for these Degrees.

"Each Bursar must present a Certificate, signed by the Dean, attesting his regular attendance on the proper Classes in the Faculty on each occasion on which he applies to the Factor for a payment."

Certificates, in terms of this regulation, will be given to Bursars, by the *Dean of the Faculty of Medicine*, after 15th November; also at the end of the Session. In applying to the Dean for the Certificate in November, Bursars must present their Class Cards for the Session; and at the end of the Session they must present certificates from the Professors that they have attended with regularity and made progress in their studies. Payments are made by the University Factor, Mr Henry Cook, W.S., 61 North Castle Street, Edinburgh, on and after 15th November for the Martinmas payments, and on and after 18th May for the Whitsunday payments,—between 10 and 3 o'clock.

N.B.—*Bursars, Scholars, and Fellows who desire to resign should at once announce this to the Dean and to the Factor. They must apply to the Factor for the instalments due to them within three months after they have become payable, otherwise they will be regarded as having resigned.*

LECTURESHIP.

The Swiney Lectureship on Geology, value £144 per annum, tenable for five years, is open to Graduates of the University of Edinburgh. It is in the patronage of the Trustees of the British Museum.

THOMAS R. FRASER, M.D., LL.D.,
Dean of the Faculty of Medicine and Professor of Materia Medica.

Faculty of Music.

Dean—Professor NIECKS.

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STUDENTS who do not intend to graduate in Music may, without matriculating or passing any Preliminary Examination, attend any of the Classes on payment of the Five Shillings University Entrance-Fee, besides the Class Fees.

Those desiring to graduate must pass the Preliminary Examination, and must Matriculate before enrolling in any Class.

The Classes, open both to men and women students, will meet as undernoted, except during the Christmas Vacation, *i.e.*, from Friday, 17th December 1897, to Tuesday, 4th January 1898, inclusively.

Programme of Classes.

WINTER SESSION, 1897-98.

PROFESSOR NIECKS.

Lectures, Theoretical and Practical Instruction, and Concerts, in the Winter Session of 1897-98 :—

1. HISTORY OF MUSIC, ESPECIALLY OF THE LAST TWO CENTURIES.

This Class will meet once a week (Thursdays, 3-4), beginning on 21st of October. Twenty Lectures. Fee, One Guinea.

Lecture I.—Music in the Middle Ages.
Lecture II.—Music in the time of the Renaissance.
Lecture III.—Music in the 17th Century.
Lecture IV.-XX.—Music in the 18th and 19th Centuries.

2. MUSICAL ANALYSIS.

The Musical Forms, described and illustrated; from Folk-Song to Music-Drama, from Hymn-Tune to Oratorio, from Dance to Symphony.

Once a week (Mondays, 3-4), beginning 18th October. Twenty Lectures. Fee, One Guinea.

3. HARMONY.

Twice a week (Tuesdays and Fridays, 3-4), beginning 19th October. Fee, Two Guineas.

4. Advanced Harmony.

Twice a week (Tuesdays and Fridays, 4-5), beginning 19th October. Fee, Two Guineas.

5. Counterpoint and Composition.

Once a week (Mondays, 4-5), beginning 18th October. Fee, Two Guineas.

6. Series of Historical Concerts.

Fee for these Concerts, Half-a-Guinea. Those attending any of the Music Classes are admitted free.

FOR MATRICULATION FEES, see page 27.

Regulations for Graduation in Music.

I. Two degrees in Music are conferred by this University, viz., Bachelor of Music (Mus. Bac.), and Doctor of Music (Mus. Doc.).

I. Preliminary Examination.

II. 1. Every Candidate for the degree of Mus. Bac. must pass a preliminary examination in :—(1) English, including Geography and British History ; (2) Elementary Mathematics or Elementary Physics or Logic ; (3) any two of Latin, Greek, French, German, and Italian, but one at least must be a modern language.

2. The extent and standard of the preliminary examination is determined by the Senatus.

3. A degree in Arts not being a degree *honoris causâ tantum*, in any University of the United Kingdom, or in any Colonial or Foreign University, specially recognised for the purpose by the University Court, after consultation with the Senatus, exempts from the preliminary examination ; and the Senatus has power to determine what examinations, other than those for the degree mentioned, will be accepted in whole or in part in place of the preliminary examination.

II. Bachelor of Music.

University Attendance.

III. Candidates for the degree of Mus. Bac. must attend, in the University of Edinburgh during a whole Winter Session, a course or courses of instruction extending in all to not less than eighty Lectures, and including a course on the History of Music.

III. First Professional Examination.

IV. There is a First Professional Examination in Music in the following subjects :—

(1) Singing or performing upon some Musical Instrument.

(2) Reading at Sight.
(3) Elements of Music, including Musical Modes, and Scales, Notation, Measure, and *Tempo*.
(4) Harmony in not more than four parts.
(5) Elementary Counterpoint.
(6) Form: Sonata, Rondo, Fugue, and Minor Structures.
(7) Outlines of the History of Music.

The Ear Test will be applied to every Candidate.

IV. Second Professional Examination.

V. There shall be, at least one year after the candidate has passed the First Professional Examination, a second Professional Examination in Music and in Literature in the following subjects :—

(1) One of the following languages not already taken in the preliminary examination—French, German, Italian.
(2) Rhetoric and English Literature (including Prose Composition and a knowledge of Metrical Rules).
(3) Harmony in not more than five parts.
(4) Advanced Counterpoint.
(5) Canon in two parts, and Imitation and Fugue in not more than four parts.
(6) Form (Description of Structure and Character of Musical Forms, and Analysis of Musical Works).
(7) Elements of Instrumentation (Compass of the Orchestral Instruments, and of the Organ and Pianoforte).
(8) Critical Knowledge of certain prescribed Scores.
(9) Playing at Sight from easy Vocal and Instrumental Scores and from Figured Bass.
(10) The History of Music.
(11) Acoustics in so far as connected with the Theory of Music, and Physiology of the Vocal Organs.

Each Candidate will also be required to submit the following exercises composed by himself :—

(*a*) A Solo Song with Pianoforte Accompaniment.
(*b*) A Four-part Vocal Composition.
(*c*) An Instrumental Composition (other than a Dance) for the Pianoforte or Organ, or for any Stringed or Wind Instrument with Pianoforte or Organ Accompaniment.

The extent and standard of examination is fixed by the Senatus. The examination is partly written and partly oral and practical.

V. Doctor of Music.

V. Bachelors of Music of this University, of not less than three years' standing, and not less than twenty-five years of age, may offer themselves for the degree of Mus. Doc. under the following regulations :—The degree is given in three Departments, those of (1) Com-

posers; (2) Executants; (3) Theorists or Historians; and Candidates may present themselves in one or more Departments.

VI. (1) Candidates for the degree of Mus. Doc. as Composers must submit a prescribed number of Vocal and Instrumental Compositions in the larger forms (such as Oratorio, Opera, Cantata, Symphony, Sonata, Overture). Each work must be the original and unaided composition of the Candidate, and must be accompanied by a declaration to that effect signed by the Candidate.

(2) Candidates will be examined in the following subjects:—

(*a*) The more recondite Contrapuntal Forms—Fugal Writing in more than four parts, &c.

(*b*) Instrumentation, including prescribed books on the subject.

(*c*) The works of the great Composers from Palestrina onwards.

VII. (1) Candidates for the degree of Mus. Doc. as Executants will be required to show their special skill in the execution of Solo and *ensemble* works in different styles. The works will be selected partly by the Candidates and partly by the examiners.

(2) The Candidates will be examined in sight-reading, and must give evidence of their power of playing Orchestral Scores, and will be required to invent Transitions and to modulate from one Key and Piece to another. They will further be required to pass an examination on the History and Literature of their special instrument, and on the method of teaching that instrument.

VIII. (1) Candidates for the degree of Mus. Doc. as Theorists or Historians must present one or more treatises on Theoretical or Historical subjects, which must be the result of research and original thought, not mere abstracts or compilations of existing works. They must be accompanied by a declaration signed by the Candidate that they are his own unaided work.

(2) Candidates will also be required to pass an examination (*a*) in the Theory and (*b*) in the History of Music.

The examination will be on a higher standard in the subject which the Candidate selects as his specialty.

IX. The examiners for the degree of Mus. Doc. are the same as for the degree of Mus. Bac.

It is competent to the University Court of the University of Edinburgh, after consultation with the Senatus, to modify from time to time the provisions as to curriculum hereinbefore contained, in case such modification shall be rendered desirable.

X. (1) The degree of Mus. Doc. may be conferred *honoris causâ tantum*.

(2) The honorary degree of Mus. Doc. will not be conferred by the Senatus on any person unless recommended by the Faculty of Music in a reasoned representation, submitted in writing to the Senatus, and considered and approved by the Senatus at a special meeting at which not less than two-thirds of the members were present.

Preliminary Examination.

The Examination in English, Latin, Greek, Mathematics, French, German, and Italian, or such other language as the Senatus may approve, is the same as the Preliminary Examination in English, Lower Latin, Lower Greek, Lower Mathematics, French, German, and Italian, or other language, approved by the Senatus, for the Degree in Arts; and the Examination in Logic and Physics is of the same standard as the Preliminary Examination in these subjects for Degrees in Medicine. The subjects are denoted in the Time-Table of the Preliminary Examinations for the Degree in Arts by the figure 4.

Candidates for Examination must apply at the Matriculation Office, University (Old) Buildings, for schedules, which must be completed and returned along with the fees, not later than 17th September 1897 and 1st March 1898 for the autumn and spring Examinations respectively.[1]

Candidates applying for information regarding the Preliminary Examination will be supplied with copies of the Regulations for the Preliminary Examinations for Degrees in Arts and in Medicine, which give the outlines and dates, &c., for the Preliminary Examination for Degrees in Music.

FEES.[1]

Preliminary Examination for each appearance, 10s. 6d.

Degree of Mus. Bac. is £10, 10s., divided as follows:—

First Professional Examination	£3	3	0
Second Professional Examination—Literary part .	1	1	0
Do. Do. —Musical part .	3	3	0
For the Diploma	3	3	0

Candidates who fail pay a fee of 10s. 6d. for each subject in which they are admitted to re-examination.

Candidates may pay the fees personally, or transmit them to T. Gilbert, University, Edinburgh, by *Post Office* or *Postal Orders*, or by *Bank Drafts*, crossed Union Bank of Scotland (Hunter Square Branch), Edinburgh, and not by cheques on private accounts.

DATES OF DEGREE EXAMINATIONS.

1898.

March 10. Names to be given in, Certificates shown, and fees paid, on or before this date.

[1] If names are not entered, and fees are not paid, on or before the stated dates, a late-entry fee of ten shillings must be paid before the Candidate can be admitted to examination.

1898. FIRST PROFESSIONAL EXAMINATION.

March 24. Singing, Playing, Reading at Sight, and Ear Test, at 10; Harmony, at 2.

„ 25. Counterpoint, at 10; Elements of Music, at 2; Form, at 3.

„ 26. History of Music, at 10.

SECOND PROFESSIONAL EXAMINATION.

„ 24. Playing at Sight from Scores, at 10; Instrumentation and Critical Knowledge of Scores, at 11; Harmony and Acoustics, at 2.

„ 25. Counterpoint, at 10; Canon and Fugue, at 2.

„ 26. History and Form, at 10.

„ „ Rhetoric and English Literature, at 10-1.

BUCHER SCHOLARSHIP.

By the will of Signor Theophile Bucher, his trustees were enjoined to pay over the residue of his estate, amounting to about £4000, to the University, for the purpose of founding one or more Scholarships in Music to be held by any young men born in Scotland, who may shew a natural talent for music and wish to make it their profession, for the purpose of improving their education, and enabling them to prosecute the study of the science and art of Music in Italy, Germany, and France.

The Subjects of Examination for the Scholarship include Harmony, Rhythm, and Counterpoint, and the competition is open to young men between the ages of sixteen and twenty-five inclusively. The value shall not, after deducting the expenses of management and of examination, exceed £120 in any one year, the interest in excess of that sum to be added to the capital to form a second Scholarship. It is tenable for three years, and may be extended to a period not exceeding two years, during which time the scholars must prosecute the study of the science and art of Music in Italy, Germany, and France, as the Senatus, on the recommendation of the Faculty of Music, may determine. The Scholarship may be open in 1899. See Scheme of Administration, page 709 of CALENDAR for 1894-95.

1896. *Robert Hutton Malcolm.*

FREDERICK NIECKS,
Dean of the Faculty of Music.

Deeds of New Foundations, etc.

GEORGE SCOTT SCHOLARSHIP.

We, the University Court of the University of Edinburgh, incorporated under "the Universities (Scotland) Act 1889," considering that the late George Scott of Eagle Villa, Queen's Road, Peckham, London, by his will dated the 24th day of March 1893, gave to his Executors and Trustees therein named and designed the sum of £1000 Sterling upon trust to apply the same in such manner and upon such terms as they might in their absolute discretion think fit to found one or more Scholarships tenable at the University of Edinburgh; And further considering that we at the request of the said Trustees and Executors prepared a scheme for the administration of a Scholarship, and submitted the same for their consideration and approval, and that the terms of the said scheme have now been adjusted to their satisfaction; and that the said Trustees and Executors have made payment to us of the sum of £1000 Sterling to account of said legacy, and have also made payment to us of the sum of £66, 4s. 11d., being the balance of interest that has accrued on said legacy, less expenses, and that it is therefore now right and proper that we should execute these presents establishing the said Scholarship upon the conditions and regulations hereinafter written which have been approved of by the said Trustees and Executors: Therefore we do hereby mortify the said sum of £1000 Sterling with the income that may have accrued thereon after deduction of all necessary expenses, to and in favour of ourselves and our successors in office as the University Court of the University of Edinburgh and for behoof thereof, for the foundation and endowment of a Scholarship to bear the name of "The George Scott Scholarship" in connection with the Faculty of Arts in the said University; and we do hereby declare that the said Scholarship shall be in the gift and appointment of the Senatus Academicus of the said University as Patrons thereof, and shall be held under, and be subject to the conditions and regulations following, viz.—*First.* The said Scholarship shall be awarded annually for one year, a previous holder being eligible for re-election. *Second.* The said Scholarship shall be given for the purpose of assisting a graduate of the Faculty of Arts in the University of Edinburgh of not more than three years' standing at the date of his

election as scholar (in the selection of whom a preference shall be given to natives of Perthshire) to travel for purposes of study or research. *Third.* Each applicant shall be required to state (1) the purpose for which he desires to use the Scholarship and (2) what other means he has towards the object he has in view. *Fourth.* The award of the Scholarship shall be based (1) on the importance of the work to be undertaken (2) the sufficiency of the means proposed to be applied to the work and (3) the capability of the applicant for the work he proposes to undertake, and the Patrons may withhold the Scholarship if none of the applicants appear to them to be suitable and deserving, in which case, as in all other cases where from the death of the scholar or otherwise an accumulation of income may take place, the income for the year or lesser period may be added to capital, or used to supplement future Scholarships as the Patrons may deem best. *Fifth.* The holder of the Scholarship shall be required in all cases to satisfy the Patrons by half-yearly Reports that he is carrying out the work undertaken, and shall present a final Report, or in the option of the Patrons shall deliver a short course of lectures on his work when completed. *Sixth.* The appointment to the Scholarship shall be made by the Patrons on a Report by the Faculty of Arts on the merits of the applicants including a recommendation of appointment. *Seventh.* For the first year the Scholarship shall be open to all graduates of the Faculty of Arts qualified as above, but thereafter preference shall be given to candidates desiring to work in the following groups of subjects under the scheme of rotation added hereto provided always that a suitable candidate presents himself (1) Classical Languages and Classical Archæology. (2) Mental Philosophy. (3) Mathematical and Physical Science. (4) Semitic and Indian Languages. (5) English and Modern Languages. And (6) History. *Eight.* The first award of a said Scholarship shall take place at the close of the Winter Session 1896-97, and so on thereafter at the close of each succeeding winter session in time coming. *Ninth.* The said Scholarship shall consist of the free annual income of the said mortified sum and accumulations thereof, that is, of the income after deduction of all necessary expenses, and shall be paid half-yearly in equal proportions at the terms of Whitsunday and Martinmas beginning the first half-yearly payment at the term of Whitsunday 1897, and the next half-yearly payment to be made at Martinmas 1897, provided the Patrons shall have received a satisfactory Report from the scholar in terms of the Fifth Condition hereof. *Tenth.* The said Scholarship shall be held only during good behaviour and shall be forfeited when, in the judgment of the Patrons the scholar is by misconduct or any other cause unfitted longer to hold the nomination. *Lastly.* We, the said University Court and our successors in office, shall be entitled to make such further regulations not inconsistent with the foregoing, such as the addition of further subjects under Article Seventh hereof, as we may from time to time consider desirable for the better administration of the said Scholarship: And it is hereby declared that

we and our foresaids shall have full power to lay out and invest the said mortified sum on any of the Securities allowed by the law of Scotland to Trustees, with power to call up and reinvest the said mortified sum as often as we may think proper: And we consent to the registration hereof for preservation. In Witness Whereof.

THE HOULDSWORTH SCHOLARSHIP.

We, John Muir Houldsworth, of Carrick House, Ayr, in the Kingdom of Scotland, Esquire, Charles Douglas Fergusson Phillips, formerly of 107 Lancaster Gate, Hyde Park, in the County of Middlesex, and now of No. 10 Henrietta Street, Cavendish Square, London, Doctor of Medicine, and George Cowell, *formerly* of No. 19 George Street, Hanover Square, in the County of Middlesex, and now of No. 24 Harrington Gardens, London, F.R.C.S., of England, *being the Trustees* acting under an Indenture or Deed of Trust, dated the 31st day of December, 1876, between me, the said John Muir Houldsworth, and the Revd. William Thomas Houldsworth of Tunbridge Wells, Clerk in Holy Orders, and James Houldsworth of Coltness, in the County of Lanark, in the Kingdom of Scotland, Esquire, of the one part, and us, the said John Muir Houldsworth, Charles Douglas Fergusson Phillips, and George Cowell, of the other part, being a deed of Trust for the foundation of "The Houldsworth Scholarship" after mentioned, *considering* that by the said deed of Trust, which proceeded on the narrative that the said parties thereto of the first part, and other members of the Houldsworth Family, were desirous of founding a Scholarship in connection with the Westminster Hospital Medical School, to be called "The Houldsworth Scholarship," and for giving effect to such desire had caused to be transferred into the names of us, the said John Muir Houldsworth, Charles Douglas Fergusson Phillips, and George Cowell, the sum of £820 Consolidated five pounds per cent. Preference Stock of the South Eastern Railway Company, to be held upon the trusts, and with and subject to the powers, provisoes, agreements, and declarations thereinafter declared of and concerning the same—the said John Muir Houldsworth, Revd. William Thomas Houldsworth, and James Houldsworth, directed and declared, and we, the said John Muir Houldsworth, Charles Douglas Fergusson Phillips, and George Cowell, did thereby agree, that we and the Survivors and Survivor of us, and the executors and administrators of such Survivor or other, the Trustees or Trustee for the time being of the said Deed of Trust (thereinafter called "the Trustees") should stand possessed of and interested in the said sum of £820 Consolidated 5 per cent. South Eastern Railway Preference Stock, or the Stocks, funds, or securities for the time being representing the same (thereinafter called "the Scholarship Fund") and the dividends, interest, and income thereof, upon the trusts, and with and subject to the powers, provisoes, agreements, and declarations thereinafter declared of and concerning the same, and *inter alia*, it was by the said Deed of Trust provided that at any time after the . . . day of Dec-

ember 1882, it should be lawful for the Trustees to vary the trusts of the said Indenture or Deed of Trust either by attaching the Scholarship thereby founded to some other medical school in London, or by opening it without preference to all medical schools, or by applying the income of the Scholarship Fund to Clinical or other Lectureship, or in any other manner the Trustees might think expedient for the promotion of medical studies, or the encouragement of medical students, and the Trustees might from time to time establish any regulations, with reference to such new or revised scheme, and might from time to time vary or revoke such regulations; and it was further by the said Indenture or Deed of Trust provided and declared that if we, the said John Muir Houldsworth, Charles Douglas Fergusson Phillips, and George Cowell, or any of us, should die, or desire to be discharged, or refuse, or become incapable to act, then, and in every such case, it should be lawful for the said John Muir Houldsworth, Revd. William Thomas Houldsworth, and James Houldsworth, and the Survivors or Survivor of them, to appoint a new Trustee or new Trustees, in the place of the Trustee or Trustees so dying, or desiring to be discharged, or refusing, or becoming incapable to act as aforesaid; and upon every such appointment the trust property should be transferred so that the same might be vested in the Trustees for the time being, and every Trustee so appointed as aforesaid, might, as well before as after such transfer, act or assist in the execution of the trusts and powers of the said Indenture or Deed of Trust, as if he had been thereby constituted a Trustee; all as the said Indenture or Deed of Trust, which is hereby specially referred to *brevitatis causa*, in itself more fully bears: *And further considering* that we, as Trustees foresaid, awarded the said Scholarship for a number of years in connection with the Westminster Hospital Medical School, and otherwise in accordance with the said Indenture or Deed of Trust, but that we have now resolved, in order to increase the usefulness of the said Endowment, and in virtue of the powers possessed by us under the said Indenture or Deed of Trust, to transfer the said Endowment to the University of Edinburgh, and vary the regulations of the said Endowment; *and that* as we are now desirous of resigning the said Trust, the said John Muir Houldsworth, Revd. William Thomas Houldsworth, and James Houldsworth, have resolved to appoint new Trustees in our place, for the purposes of the said Endowment; *and that the* fund now held by us for the purposes of the said Scholarship consists of (1) the said £820 Consolidated 5 per cent. South Eastern Railway Preference Stock, and (2) a sum of £185, 17s. 4d. Stg. or thereby of accumulated income thereon; *and that*, simultaneously with the execution hereof, we have executed a Transfer of the said Stock in favour of the new Trustees hereinafter appointed, and we have also paid over to them the said sum of £185, 17s. 4d. Stg. or thereby; and *it* being right and proper that we and the other granters hereof should now execute these presents for carrying out the said arrangements; *therefore in the first place*, we, the said John Muir Houldsworth, Revd.

William Thomas Houldsworth, and James Houldsworth, do hereby nominate and appoint *Sir William Muir*, Knight Commander of the Most Exalted Order of the Star of India, Principal of the University of Edinburgh, and *Thomas Richard Fraser*, Esquire, Doctor of Medicine, Professor of Materia Medica in the University of Edinburgh, and Dean of the Faculty of Medicine in the said University, and their successors in their *said* respective offices of Principal, Dean of the Faculty of Medicine, and Professor of Materia Medica, all in the University of Edinburgh, *to be Trustees* under the said Indenture or Deed of Trust in place of, and in succession to, the said John Muir Houldsworth, Charles Douglas Fergusson Phillips, and George Cowell, to hold the said £820 Consolidated 5 per cent. South Eastern Railway Preference Stock, and said sum of £185, 17s. 4d., or thereby, for the purposes of the said Endowment as now varied by these presents; *and we* the whole *granters* hereof *hereby declare* that the said Trustees hereby appointed shall hold the said Stock and said sum of £185, 17s. 4d., or thereby, less expenses, and all accumulations of income thereon, and future investments thereof, for the carrying on of the said Endowment under the name of "The Houldsworth Scholarship" in connection with the Chair of Materia Medica in the University of Edinburgh; Which Scholarship shall be awarded and held under and subject to the regulations following, viz.:— *First.* The Patronage of the said Scholarship shall, during the said Thomas Richard Fraser's tenure *of* office as Professor of Materia Medica in the said University, belong to and be exercised by him alone; and, thereafter, the Patronage of the said Scholarship shall belong to and be exercised by all the Trustees for the time being of the said Endowment, subject to the regulations herein contained; *Second.* The said Scholarship shall be held by a young Graduate in or Student of Medicine of the University of Edinburgh, to be selected by the Patron or Patrons of the said Scholarship for the time being, and shall be awarded after such examination, competitive or otherwise, as to *the* Patron or Patrons for the time being shall seem proper; and the object of the said Scholarship shall be to promote research in Pharmacology which shall be carried on by the Scholar during his tenure of the Scholarship in the Department of Materia Medica in the University of Edinburgh; *Third.* The ordinary tenure of the said Scholarship shall be for one year only but with power to the Patron or Patrons for the time being to bestow the same on the same scholar for a second, or even a third year, if, in his or their opinion, good *work* is being done by the Scholar during his tenure of the Scholarship; *Fourth.* The first award of the said Scholarship shall be made within one year from the last date hereof, the exact date for such award to be fixed by the said Thomas Richard Fraser, and the dates for *future* awards shall be fixed by the Patron or Patrons for the time being. *Fifth.* In the event of the said Scholarship being vacant for any period, the income of the Endowment for such vacant period, shall be added to the Capital; *Sixth.* Every holder of *the* said Scholarship shall, during his tenure of office, produce such

evidence, to the Professor of Materia Medica in the said University as may be required by the Professor, stating where and how he is engaged in the prosecution of research in Pharmacology; and *Lastly*. The said Trustees hereby appointed and their successors in office shall possess the whole powers conferred by the said Indenture or Deed of Trust, and specially without prejudice to the said generality they shall have power to make such further regulations from time to time as they may consider necessary or expedient for the administration of the said Endowment, or for the improvement of the conditions of tenure of the said Scholarship, or for varying the application of the income of the Scholarship Fund for the promotion of Medical Studies or the encouragement of Medical Students, all as provided for by the said Indenture or Deed of Trust. And they shall also have full power to retain the said Stock as an investment for the said fund as long as they think proper, and to invest all moneys belonging to the Capital of the said Endowment upon any investment allowed by the said Indenture or Deed of Trust or by law for trust funds, in the United Kingdom; declaring that the said Trustees shall not be responsible in any way for the sufficiency or insufficiency of the Stock or investments on which the said fund, is now, or may at any time hereafter be invested. *In the second place* we, the said Sir William Muir, and Thomas Richard Fraser, as respectively Principal, and Dean and Professor foresaid, do hereby accept of the office of Trustees *ex officiis* under the said Indenture or Deed of Trust and these presents, to which we have been appointed as above written, and we agree to accept and hold the said Endowment for the purposes above mentioned. *And in the third place* we, the said John Muir Houldsworth, Charles Douglas Fergusson Phillips, and George Cowell, *do hereby resign* as at and from the last date hereof the office of Trustees held by us under the said Indenture or Deed of Trust. And we all consent to registration hereof for preservation. In Witness Whereof.

NICHOL FOUNDATION.

We, John Hastie, Bachelor of Laws, Solicitor, Edinburgh, and James Kennedy, Merchant, Edinburgh, the surviving Trustees of the late Mrs Elizabeth Crozier or Nichol, who resided sometime at Number twenty-four and thereafter at Number twelve Findhorn Place, Edinburgh, widow of Walter Nichol, Doctor of Laws, Edinburgh, under her Trust Disposition and Deed of Settlement and two Codicils thereto annexed, dated respectively twelfth November Eighteen hundred and eighty-four, eleventh December Eighteen hundred and ninety-one, and thirtieth May Eighteen hundred and ninety-five, all recorded in the Books of Council and Session on the eighth day of February Eighteen hundred and ninety-six, considering that the said Mrs Elizabeth Crozier or Nichol by her said Trust Disposition and Deed of Settlement gave, assigned, disponed, and bequeathed to and in favor of us the said John Hastie and James Kennedy, and of Andrew Anderson Hastie, Solicitor

Supreme Courts, Edinburgh, who predeceased her, and the acceptors or acceptor, and survivors or survivor of him and us, as Trustees and Trustee for the ends, uses, and purposes therein mentioned, and the assignees whomsoever of her said Trustees or Trustee, heritably and irredeemably, All and Sundry lands and heritages, tacks, debts, heritable and moveable, goods, gear, sums of money and effects, and in general all her estate, heritable and moveable, wheresoever situated, then belonging and addebted or which should belong and be addebted to her at the time of her death, with the writs, titles, evidents, vouchers, and instructions of the same, and all her right and interest therein; Further considering that by the fourth purpose of the said Trust Disposition and Deed of Settlement it is provided as follows, viz., "In "accordance with the expressed wish of my said son" (John Walter Nichol, Astronomer), "I direct and appoint the said Trustees and "Trustee to set apart and invest in their own names, or to convey "over and mortify in favor of the University of Edinburgh and the "Senatus Academicus thereof, the sum of Two thousand pounds Ster-"ling, for the purpose of founding an assistantship or foundation in "connection with the physical laboratory attached to the chair and "class of Natural Philosophy in said University, which shall in all "time coming be called the 'Nichol Foundation,' and that in com-"memoration of my said husband and son: And I hereby declare that "the free yearly interest or income derivable from said sum shall be "paid to some deserving student, who shall regularly attend and "devote himself as assistant in said laboratory, and who shall be "bound to give his whole time in promoting the study of Natural "Philosophy in connection therewith, and the right of presentation "thereto shall be vested in Peter Guthrie Tait, Esquire, Professor of "Natural Philosophy in said University, and his successors in that "chair, or in the said Senatus Academicus, should the said mortified "sum be made over to the latter; And I hereby give and confer on "the said Trustees along with the said Peter Guthrie Tait or his suc-"cessors as aforesaid, full power and authority to frame rules, regula-"tions, and conditions as to the mode of competition to be recognized "for awarding said assistantship or foundation, and, if necessary, to "consult with the members of said Senatus in reference to the best "means to be adopted for carrying the same into effect, the desire of "my said son as expressed by him, having been that the study of "physical science in so far as connected with said chair, should be "promoted and encouraged." Further considering that under and by virtue of "The Universities (Scotland) Act 1889," the University Court of said University, as constituted by and in terms of said Act, has now the full control and administration of all funds and endowments of that University: And further considering that in fulfilment of the said directions in the said Trust Disposition and Deed of Settlement of the said Mrs Elizabeth Crozier or Nichol, it is right and proper that we, as surviving Trustees foresaid, should grant in favour of said

University Court the Deed of Mortification, the terms of which have been adjusted by us in concert with the said Peter Guthrie Tait, as testified by his subscription hereto ; Therefore we, the said John Hastie and James Kennedy, as surviving Trustees foresaid, with concurrence of the said Peter Guthrie Tait, do hereby give, grant, dispone, and mortify the said sum of Two thousand pounds Sterling to and in favour of the University Court of the University of Edinburgh, incorporated under the said Universities (Scotland) Act, Eighteen hundred and eighty-nine, and their successors in office, for behoof of the said University for the foundation and endowment of an assistantship or foundation in connection with the physical laboratory attached to the chair and class of Natural Philosophy in said University, to be called in all time coming the "Nichol Foundation" and to be awarded and held under and subject to the conditions contained in the said Trust Disposition and Deed of Settlement as above set forth, and the following conditions and regulations, viz. :—(*First*). The patronage or right of presentation of the said Nichol Foundation shall belong to and be vested in the said University Court, and shall be exercised by it subject to the conditions herein contained ; (*Second*). The Professor of Natural Philosophy for the time being in the said University shall have the right to recommend the student whom he considers best qualified for the duties of said assistantship, but his recommendation may or may not be homologated by said University Court ; (*Third*). The period during which said student shall hold said Foundation shall be limited to one year, but on the recommendation of the Professor of Natural Philosophy it may be continued for a second year or longer ; (*Fourth*). The first appointment to said Foundation shall be made on or about first November Eighteen hundred and ninety-six ; (*Fifth*). The annual amount of the said Foundation and the duties of the student appointed for the time thereto shall be as pointed out by the said Mrs Elizabeth Crozier or Nichol, in her said Trust Disposition and Deed of Settlement above quoted, subject to such alteration or modification on the conditions of tenure as may be made by said University Court from time to time, as after provided for ; (*Sixth*). The holder of said Foundation shall not be entitled to hold any bursary or scholarship during the time he holds the said Foundation, and on his accepting any such bursary or scholarship, his right to the said Nichol Foundation shall then cease and determine, and the said University Court may then proceed to make a new election to said Foundation ; (*Seventh*). All surplus income derived during a vacancy in said Foundation shall be added to the capital thereof ; and (*Lastly*). The said University Court shall have full power to make such alterations or further regulations from time to time as may be considered by them necessary or expedient for the administration of the fund hereby mortified, so as more effectually to carry out the benefit to the said University intended by the said deceased Mrs Elizabeth Crozier or Nichol, in making said Foundation ; and they shall also have full power to lay out and invest the said mortified sum

on good and approved heritable securities, or in the purchase of well secured feu-duties or of debentures, or debenture stock of well established Railway Companies paying dividends on their ordinary stock, or in the purchase of Government Stock, or any other investment allowed by law for Trust Funds: Declaring that the said University Court shall not be responsible for the sufficiency or insufficiency of the security or investments on which the said fund or any part thereof may at any time hereafter be invested: And we, as surviving Trustees foresaid, consent to registration hereof for preservation: In Witness Whereof.

RITCHIE SCHOLARSHIPS IN ORIENTAL LANGUAGES, TO BE HELD BY CANDIDATES FOR THE CIVIL SERVICE OF INDIA.

I. The income of the Fund shall be applied to the purpose of providing two Scholarships of about £40 (one-half of the yearly revenue); tenable, in the first instance, for one year. But a Scholarship may be renewed for a second, and even for a third year in special cases.

II. Candidates for the Scholarships must have taken Second Class Honours (at least) in some Department of the Faculty of Arts, *or* must have taken a Degree in Science, *or* must hold First Class (Prize) Certificates in not less than *four different* subjects.

III. The Examination shall be held in September or October. Students shall be eligible who shall have passed the age of eighteen at the date of the Examination, and whose age will not exceed twenty-three on the first of January following. [In case of any change made in the limits of age by the Civil Service Commissioners, corresponding changes may be made in the above terms].

IV. Candidates may offer the elements of Sanskrit or Arabic.

The following papers will be set for all:—

1. An English Essay.
2. A Translation Paper consisting of passages in Greek, Latin, French, and German.

Candidates shall be required to give notice to the Secretary of the Senatus of their intention to compete a month before the date of the Examination.

They should submit—

(*a*) Evidence of age.

(*b*) A list of Distinctions won in Class or Honours Examinations.

(*c*) If they are offering Sanskrit or Arabic, an intimation to that effect.

V. The holder of a Scholarship will be required (1) to declare his intention of competing for the Civil Service of India, (2) to study Sanskrit or Arabic, attending a class at Edinburgh in one of the subjects, and producing evidence of progress, (3) to produce evidence of general industry, and of progress in other subjects which he intends to offer in the Indian Civil Service Competition.

The Scholarships shall not be tenable along with any other Scholarship or Bursary without the express approval of the Senatus.

VI. The Scholarships are in the patronage of the Senatus. A Committee appointed by the Faculty of Arts shall arrange for the Examination (deputing to its convener or some other member the duty of making preliminary arrangements in September), receive the reports of Examiners, consider the claims of Candidates, and report to the Faculty of Arts.

The awards of the Scholarships shall be made by the Senatus on a report of the Faculty based upon the results of the Examination, subject to the proviso that it shall be in the discretion of the Faculty to take into account also such previous distinctions won by Candidates as it may consider important.

The Examination will consist of 1. An English Essay (three hours); 2. A paper in four different languages (three hours), passages for translation; 3. A paper in Sanskrit or Arabic, if offered (three hours).

EARL OF MORAY ENDOWMENT.

REGULATIONS FOR THE PURPOSES OF THE ENDOWMENT.

1. The available income shall, in the first place, be applied to the payment of the actual expenses of the prosecution of Original Research, present or contemplated, intended and likely to increase existing human knowledge, in any of its departments.

In such expenses would be included apparatus, special accommodation, specimens, chemical substances, books, journals, pamphlets, reproductions of manuscripts, &c., and actual maintenance and travelling expenses, in so far as they are shown to be necessary for the purposes of research, provided that it shall be permissable to furnish out of the income such specific additions to the Library as may be deemed necessary to stimulate and aid research.

All apparatus, specimens, books, journals, pamphlets, &c., and all unused chemical substances shall, at the termination of the research, be returned, or otherwise accounted for to the University.

2. Any surplus income after meeting the claims defined in 1, above, may be expended in (*a*) the printing and publishing of noteworthy results, including illustrations for papers containing such results; and (*b*) the payment, after careful consideration of all the circumstances, of such grants of money as may be necessary to enable applicants to enter upon or carry on the work of research, or to encourage the prosecution of research.

3. All graduates and other members of the University, "or other persons who have given satisfactory proof of general education and of fitness to engage in some special study or research," shall be entitled to apply for assistance under Sections 1 and 2.

4. In so far as the subject of the research admits, the investigation shall be conducted in the buildings of the University.

5. All applications for participation in the Fund shall in the first place be submitted to the appropriate Faculty, and be thereafter trans-

mitted to a Committee of the Senatus representative of each Faculty, which shall annually be appointed to consider all claims for participation in the Endowment. This Committee shall report to the Senatus, who shall transmit to the Court the scheme of distribution for the year and their opinion on the several applications for the approval of the Court.

REGULATIONS FOR THE MISSES BAXTER OF BALGAVIES BURSARIES.

(1). Two Bursaries, each of the annual value of £30 and tenable for three years, have been instituted from the accumulation of the revenue of the Misses Baxter of Balgavie's Scholarships.

(2). Candidates for these Bursaries, for which women are eligible, must have been educated in the High School of Dundee for at least the year immediately preceding the competition, and must pass the Preliminary Examination or its equivalent. The number of subjects is limited to five, and a considerable variety of choice is allowed to suit the curriculum of the school.

(3). Candidates for these Bursaries are examined in the Bursary Competition, held in the University of Edinburgh, in the Autumn of each year.

(4). The successful candidates may study for the Degrees of M.A., B.Sc., B.L., LL.B., or M.B.Ch.B.

(5). The following are the subjects of examination, of which candidates may select not more than five, viz. :—English, (100); Latin, (100); Greek, (100); Mathematics, (100); French, (50); German, (50); Dynamics, (50); Chemistry, (50). The expense of the additional examination in Chemistry and of reading papers is debited to the Scholarship Fund.

Benefactors of the University.

THE Revenues of the University were formerly scanty and very inadequate for the encouragement of the higher education and learning in the Scottish metropolis. Scholarships and Fellowships were unknown prior to those recently instituted, and the emoluments of several of the Chairs are still greatly inferior to those in many other Universities.

During the early period of its history, the University received a considerable number of small donations and bequests, chiefly for Bursaries. Notices of these will be found in the preceding pages, in the Histories of the University by Bower, Dalzel, and Grant, and in the Report of the Universities' Commissioners in 1830. A list of early Benefactors to the Library is given at p. 41.

By Act 1 & 2 Vict., cap. 55, the various sums of money mortified in the hands of the Town Council for the support of the University, amounting to £13,119, were discharged, and an annual payment of £2500 (since reduced to £2170), secured in terms of "The Edinburgh Corporation Stock Act, 1894," over the Common Good of the City, &c.

Within this century, but especially since 1860, many donations and bequests have been made by Benefactors of the University for the foundation of Fellowships, Scholarships, and Bursaries, for the endowment of Chairs, and for the erection of the New Buildings, including the great "M'Ewan Hall." As the University, however, is still very inadequately endowed, much requires to be done that it may not fall behind the requirements of the age. Intending Benefactors are respectfully reminded that additional CHAIRS, LECTURESHIPS, LABORATORY EQUIPMENTS, LIBRARY ENDOWMENTS, SCHOLARSHIPS, BURSARIES, and FUNDS for RESEARCH, for GENERAL MAINTENANCE, and for BUILDING, are urgently required. The

names of Benefactors, if so desired, may be connected with the Benefactions they bestow. Such Benefactions may simply be conveyed to the "University of Edinburgh." All necessary information will be gladly afforded by the Secretary of the University Court, the Secretary of Senatus, the Registrar, the Deans of the Faculties, or the University Librarian.

The following list includes the chief Benefactors of the present century, together with the purposes of their benefactions [1] :—

(A.)—*Founders of Bursaries in the present Century.*

Rev. J. STUART, South Carolina—Founder of the Stuart Bursaries.

Sir JOHN M'PHERSON, late Governor-General of India—Founder of the M'Pherson Bursary (now the Macpherson Scholarship).

Rev. R. BLAIR, D.D.—Founder of the Blair Bursaries in Arts and Theology.

J. STEWART HEPBURN, Esq. of Colquhalzie—Founder of three Theological Bursaries.

JOHN JAMIESON, Esq., Edinburgh—Founder of the Jamieson Bursary.

GEORGE PARKER BIDDER, Esq.—Founder of the Jardine Bursary.

WILLIAM LENNIE, Esq., Teacher, Edinburgh—Founder of the Lennie Bursaries.

JOHN BRUCE, Esq., Trinity Crescent, Edinburgh—Founder of the Bruce Bursaries.

M'DIARMID TESTIMONIAL TRUSTEES—Founders of the M'Diarmid Bursary.

W. PATRICK, Esq. of Roughwood—Founder of the Patrick Bursaries.

JAMES GRAY, Esq. of Baadpark—Founder of the Gray Bursaries.

EDINBURGH CAITHNESS ASSOCIATION—Founders of a Bursary.

EDINBURGH GALLOWAY ASSOCIATION—Founders of a Bursary.

AYRSHIRE CLUB—Founders of two Bursaries.

PEEBLESSHIRE SOCIETY—Founders of a Bursary.

Dr ABERCROMBIE, Cape Town—Founder of a Bursary.

Mrs MARGT. TYNDALL BRUCE of Falkland—Founder of Bursaries.

TRUSTEES of FRANCIS J. SCOTT, Esq. of Mount Lodge, Portobello—Founders of two Bursaries.

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[1] An Association exists for the purpose of promoting—1st, The Foundation of Bursaries and of Scholarships and Fellowships for the encouragement of the higher learning among the more advanced Students; 2d, The better Endowment of existing Chairs where necessary; 3d, The Foundation of new Professorships and Lectureships; 4th, The aid of the General University Fund; and 5th, Other University objects.

The Chancellor of the University is President of this Association; the Hon. Secretary is Sir Alexander Christison, Bart.; and the Acting Secretary is Robert G. Scott, Esq., W.S., 61 Castle Street, Edinburgh.

Miss HANNAH HARRISON of Lasswade—Founder of a Bursary.

Miss MARY ETTLES of Inverness—Founder of three Bursaries, and the "Ettles Medical Scholarship."

TRUSTEES of the Rev. JOHN SPENCE, Minister of Kinnaird—Founders of two Bursaries.

JOHN ROBERTSON SIBBALD, M.D.—Founder of Five Bursaries.

ARGYLLSHIRE, BUTE, and WESTERN ISLES ASSOCIATIONS—Founders of a Bursary.

SUBSCRIBERS to MEMORIAL to ROBERT STEWART, Esq. of Ardvorlich—Founders of a Bursary.

THE EDINBURGH BORDER COUNTIES ASSOCIATION—Founders of two Bursaries.

THE RIGHT HON. THOMAS, EARL OF ZETLAND—Founder of the Orkney and Zetland Bursary.

TRUSTEES OF JAMES GRIERSON, OF OGSCASTLE—Founders of the Grierson Bursaries.

TRUSTEES OF Dr MACKIE, Leith—Founders of Mackie Bursaries.

TRUSTEES of J. CAIRNS, Esq., W.S.—Founders of the Cairns Bursary.

TRUSTEES OF Mrs JOHNSTONE of Harthope, Moffat—Founders of the Johnstone of Harthope Bursary,

TRUSTEES OF JAMES LAMBERT, Esq., Alloa—Founders of the Lambert Bursary.

ROBERT MARSHALL, Esq., Merchant, Edinburgh—Founder of the Marshall Bursary.

JOHN FOTHRINGHAM, Esq. of Heathpool—Founder of the Fothringham and Forrest Bursaries.

Right Hon. LAWRENCE, EARL OF ZETLAND—Founder of the Zetland Bursaries.

ANDREW THOMSON, M.D.—Founder of Eight Bursaries in Arts, Divinity, Law, and Medicine.

EDINBURGH EAST LOTHIAN ASSOCIATION—Founders of a Bursary in Arts.

EDINBURGH UNIVERSITY ENDOWMENT ASSOCIATION—Founders of Six Bursaries in Arts.

Mrs ISABELLA WEBSTER—Founder of the Webster Bursaries in Divinity.

Dr JOHN AITKEN CARLYLE—Founder of two Bursaries in the Faculty of Medicine.

Mrs ELIZABETH MACKENZIE—Founder of the Mackenzie Bursaries.

Dr JOHN MUIR—Founder of a Classical Bursary.

TRUSTEES OF Mrs BARBARA MACAULAY OR MYLNE—Founders of a Bursary in Divinity.

TRUSTEES OF Rev. JOHN PATTERSON—Founders of a Bursary in Anglo-Saxon Grammar and Literature.

THOMAS CARLYLE—Founder of the John Welsh Bursaries in Mathematics and Classics.

Mrs HELEN ANDERSON or RONALD, Liverpool—Founder of the Anderson Bursaries.

SUBSCRIBERS to Testimonial to W. MACKINNON, Esq. of Balinakill—Founders of the Mackinnon Bursaries.

TRUSTEES of JAMES WHITELAW—Founders of Whitelaw Bursaries.

TRUSTEES of WILLIAM RENTON, Esq.—Founders of a Bursary in Divinity, and one in Arts.

Miss ISABELLA MACDOUGALL, Perth—Founder of the John and Isabella Macdougall Bursaries.

ROBERT HUNTER, Esq., Dalhousie Chesters—Founder of two Bursaries in Divinity.

ROBERT PILLANS NEWTON of Castlandhill and Drumcross—Founder of the Newton Bursaries.

PETER CAMPBELL MANN of Seaham Harbour, Durham—Founder of a Bursary.

CHARLES JARDINE of Thorlieshope—Founder of Bursaries in Arts.

ISAAC ANDERSON HENRY—Founder of the Anderson Henry Prize.

Mrs H. E. MORISON—Founder of the Mackenzie (Stornoway) Bursary.

DANIEL MACLAURIN, Esq.—Founder of the Maclaurin Bursary.

THOMAS LOCKERBY, Esq.—Founder of the Lockerby Bursary.

GEORGE COUSIN, Esq.—Founder of the "Bailie Cousin Bursary."

THOMAS HILL PATTISON, M.D.—Founder of the Pattison Prize in Clinical Surgery.

Major ROBERT ORR CRICHTON of Lynn—Founder of the Crichton Bursaries in the Faculty of Medicine.

Rev. THOMAS MAULE—Founder of Maule's Bursaries.

Mrs A. B. R. MILNER FOTHERGILL of Hayton Quarry—Founder of the Milner Fothergill Gold Medal in Therapeutics.

DONALD FRASER, M.D., London, and ASSOCIATION for the BETTER ENDOWMENT of the UNIVERSITY—Founders of the Donald Fraser Bursary in Experimental Physics.

SUBSCRIBERS TO MEMORIAL TO PROFESSOR KELLAND—Founders of Kelland Memorial Prize.

GOVERNORS OF GEORGE HERIOTS' TRUST—Founders of Bursaries in Arts, Science, and Medicine.

Dr THOMAS CHARLES HOPE, late Professor of Chemistry—Founder of the Hope Prize (now two Hope Scholarships).

Mrs Margaret Tyndall Bruce—Founder of Prize in Logic Class.

Daniel Ellis, Esq.—Founder of "The Ellis Prize" in the Faculty of Medicine.

John Edward Baxter, Esq., of Craigtay, bequeathed the reversion of his Estate for the purpose of founding Scholarships, etc.

Dr Neil Arnott gave £1000 for Promoting the Study of Experimental Physics among the Medical Students of the University.

Rev. Hew Scott of Wester Anstruther—Founder of the Scott and Dunbar Prize in Greek.

John Wilson, Esq. of South Bantaskine—Founder of the Robert Wilson Prize in Chemistry.

Mrs E. Wightman—Founder of the Wightman Prize in Clinical Medicine.

James George Beaney, Esq.—Founder of the Beaney Prize.

Andrew Robertson Cameron, M.D., of Richmond, New South Wales—Founder of the Cameron Prize.

(B.)—*Founders of Scholarships or Fellowships in the present Century.*

The Pitt Club—Founders of two Scholarships, one in Arts and one in Divinity.

James Mackenzie, Esq., W.S.—Founder of Mackenzie Scholarship.

Alex. Henry Rhind, Esq. of Sibster—Founder of the Rhind Scholarships and Bursaries.

Sir David Baxter, Bart., of Kilmaron—Founder of the Baxter Scholarships in Arts and Science.

Sir William Fettes, Bart.—Founder of the Fettes Exhibitions.

John Maxton, Esq.—Founder of a Divinity Scholarship.

Miss Elizabeth Drummond—Founder of the Drummond Scholarship.

Mrs Margaret Tyndall Bruce—Founder of three Scholarships.

James Guthrie, Esq., of London—Founder of the Guthrie Fellowship.

Subscribers to Hamilton Memorial Fund, and Association for the Better Endowment of the University—Founders of a Philosophical Fellowship.

Association for the Better Endowment of the University—Founders of a Classical Fellowship.

Trustees of Dr J. H. Gilchrist—Founders of three Scholarships for Natives of India.

John Robertson Sibbald, M.D.—Founder of a Medical Scholarship.

Miss Mary Baxter, of Balgavies—Founder of Scholarships.

Subscribers to Falconer Memorial Fund—Founders of a Fellowship.

Subscribers to Syme Fellowship—Founders of a Fellowship in the Medical Faculty.

Subscribers to Goodsir Memorial Fund—Founders of a Fellowship in the Medical Faculty.

Rev. Joseph Taylor Goodsir bequeathed £900 to Supplement the Goodsir Memorial Fund.

Robert A. Goodsir, M.D., Edinburgh, bequeathed residue of his Estate, amounting to about £2000, to supplement the Goodsir Memorial Fund.

Trustees of Mrs Charles Maclaren—Founders of the Charles Maclaren Scholarship.

Subscribers to Glover Memorial Fund, and Association for the Better Endowment of the University—Founders of the "Glover Divinity Scholarship."

Mrs M. Arnott, Widow of Neil Arnott, M.D.—Founder of the "Neil Arnott Scholarship for Experimental Physics."

John Edward Baxter, Esq. of Craigtay, bequeathed the residue of his estate, out of which three Scholarships named after him have been founded by the University Endowment Association.

The Rev. David Aitken, D.D., formerly Minister of Minto—Founder of the Aitken Scholarship.

David Skirving, Esq., of 13 Westbourne Park, London—Founder of the Skirving Scholarship for Moral Philosophy.

Andrew Thomson, M.D.—Founder of a Scholarship.

Misses Kidd of Woodhouse—Founders of the David Kidd Divinity Scholarship.

Dr R. H. Gunning of Rio Janeiro—Founder of ten Prizes in the Faculty of Divinity, and of eleven Prizes in the Faculty of Medicine.

Dr T. Leckie—Founder of the Leckie-Mactier Scholarship.

Subscribers to Memorial of Dr Coldstream—Founders of the Coldstream Memorial Medical Missionary Scholarship.

Mrs James Buchanan—Founder of a Scholarship in Midwifery and Gynecology.

Dr Andrew Vans Dunlop, H.E.I.C.—Founder of the Vans Dunlop Scholarships in Arts, Law, and Medicine.

Misses Steven of Bellahouston—Founders of a Scholarship in Agriculture.

Subscribers to Memorial of Dr Charles Murchison—Founders of the "Charles Murchison Scholarship."

Mrs Mary Ann Scott or Thomson of Hawick—Founder of the James Scott Scholarship in Midwifery.

Robert Mackay-Smith, Esq., Edinburgh—Founder of the Mackay-Smith Scholarships in Natural Philosophy and Chemistry.

Dr Frederick John Mouat—Founder of the Mouat Scholarship in Practice of Physic.

Dr John Stark, Auchtermuchty—Founder of the Stark Scholarship in Clinical Medicine.

Mrs Kidd—Founder of "James Fairbairn's Scholarship."

Miss Jane Jeffrey—Founder of the Jeffrey Scholarships.

Dr A. H. Freeland Barbour—Founder of the Freeland Barbour Fellowship.

Miss Matilda Johnston Cobb—Founder of the Cobb Divinity Scholarship.

Mrs Elizabeth Mackie or Trevelyan—Founder of Scholarships in Engineering and Mechanical and Useful Arts.

Mrs Muirhead—Founder of Prize in Civil Law Class.

Subscribers to Lorimer Memorial Fund and Association for the better Endowment of the University—Founders of the Lorimer Travelling Scholarship.

George Scott, Esq., Peckham, London — Founder of the Scott Travelling Scholarship, for purposes of Study or Research.

Governors of George Heriot's Trust—Founders of Fellowships in Arts and Pure Science.

Mrs E. Crozier or Nichol, Edinburgh—Founder of Scholarship in Natural Philosophy.

Trustees of late Earl of Moray—Founders of "The Earl of Moray's Endowment of £20,000" for Original Research.

Misses Margaret Keith Aytoun and Isabella Aytoun—Founders of the Edmondstone Aytoun Fellowship.

Mrs Jane Allan, widow of the late John Allan, M.D., H.E.I.C.S.—Founder of Fellowship in the Faculty of Medicine.

(C.)—*Founders of New Chairs, Contributors of Endowments to existing Chairs, or of Money, &c., to the University Funds, Library, &c., within the present Century.*

General John Reid—Founder of the Theory of Music Chair, who also bequeathed money to the Funds of the University.

General Sir Joseph Straton—Bequest to the University Funds.

Sir James Erskine, of Torry, bequeathed Pictures, Bronzes, and Marbles to the University. [Lent to the National Gallery.]

Sir William Pulteney—Founder of the Chair of Agriculture.

Dr William Thomson—Founder of the Thomsonian Lectureship in Mineralogy.

Sir GEORGE BALLINGALL, late Professor of Military Surgery—Presented his Library to the University.

Dr W. P. ALISON, late Professor of the Theory of Medicine—Presented his Medical Books to the University.

JOHN MUIR, D.C.L., LL.D., Edinburgh—Founder of Sanskrit Chair.

Sir DAVID BAXTER, Bart., of Kilmaron—Founder of the Chair of Engineering.

DAVID COWAN, Esq., of Auchendrane, bequeathed £1000 to the Association for Promoting the Endowment of the University.

Sir RODERICK IMPEY MURCHISON gave £6000 for the Endowment of the Chair of Geology.

J. O. HALLIWELL PHILLIPPS, Esq., presented his valuable Shakespearean Collection to the University.

ROBERT COX, Esq., W.S., bequeathed £5000 for general purposes and for completing the Dome of the University buildings.

Signor THEOPHILE BUCHER bequeathed his Music Library to the Chair of Music, and reversion of estate to found Scholarships in Music.

THE MERCHANT COMPANY OF EDINBURGH, and other Governors of George Watson's and Daniel Stewart's Hospitals—Founders of the Chair of Political Economy and Commercial Law.

Mr HENRY G. and Miss FRANCES WATSON—Donors of Fund for the "Watson-Gordon Professorship of Fine Art." The Deed of Foundation will be found in CALENDAR for 1873-74, p. 320.

Sir D. BAXTER, of Kilmaron, bequeathed £20,000 for the Extension of the University buildings, and £20,000 for the Further Endowment of the Chairs in the Faculty of Arts.

Miss BROWN, of Lanfine, presented a portion of the Minerals and Fossils which belonged to her father—to be called "The Waterhaugh Collection."

THE BELL TRUSTEES, who gave £6000 for the Endowment of the Bell Chair of the Theory, History, and Practice of Education. (Endowment increased in 1886 by £4500, added by Educational Endowments Commission.)

JOHN B. BAILLIE, who transferred the collection of Arabic MSS., formed by Lieut.-Col. Baillie of Leys, to the University Library.

Dr DAVID LAING, bequeathed his MSS. to the University Library.

Mrs HODGSON, presented Works on Political Economy, collected by her late husband, Prof. Hodgson, to the University Library.

Dr VANS DUNLOP bequeathed £3000 to the General Fund of the University.

SUBSCRIBERS to the CELTIC CHAIR, by whom a fund of £14,000 was raised for the endowment of this Chair by the exertions of Professor Blackie.

Miss MARY DICK bequeathed a moiety of the residue of her estate to accumulate for twenty-one years from 1883, or till it shall amount to £10,000, for the Foundation of a Chair of Comparative or Surgical Anatomy, as considered most to be required.

SUBSCRIBERS of £500 and upwards to the "UNIVERSITY OF EDINBURGH BUILDINGS EXTENSION SCHEME":—[1]

The late Sir David Baxter of Kilmaron, Bart., by bequest, less Legacy Duty,	£18,000	0	0
William M'Ewan, Esq., M.P.,	6,500	0	0
The late Duke of Buccleuch and Queensberry, K.G., D.C.L., LL.D.,	4,000	0	0
The Magistrates and Council of the City of Edinburgh,	3,100	0	0
The Right Hon. the Earl of Moray,	2,525	0	0
The Right Hon. The Earl of Rosebery, LL.D.,	2,400	0	0
The Royal College of Physicians of Edinburgh,	1,575	0	0
The Right Hon. the Earl of Stair, K.T.,	1,500	0	0
Messrs John Jeffrey & Co.,	1,500	0	0
The late J. Fulton, Esq., Clinton Road,	1,150	0	0
Charles Andrew Aitchison, Esq., Queen Street,	1,050	0	0
The Most Hon. the Marquis of Bute,	1,000	0	0
Andrew Carnegie, Esq., New York and Pittsburg,	1,000	0	0
The Right Hon. the Earl of Derby,	1,000	0	0
J. R. Findlay, Esq., Rothesay Terrace,	1,000	0	0
The Right Hon. The Earl of Home,	1,000	0	0
The Right Hon. The Earl of Hopetoun,	1,000	0	0
The late Sir William Stirling-Maxwell of Pollok and Keir, Bart., LL.D., M.P.,	1,000	0	0
The Rt. Hon. The Earl of Wemyss and March, LL.D.,	1,000	0	0
The Right Hon. the Lord Justice-General, D.C.L., LL.D., Chancellor of the University,	800	0	0
Messrs Thomas Nelson & Sons,	800	0	0
The late Henry George Watson, Esq., C.A.,	800	0	0
The Most Hon. the Marquis of Lothian,	750	0	0
The Society of Writers to the Signet,	750	0	0
J. Lindsay Bennet, Esq., Taviton Street, London,	710	0	0
James Cowan, Esq., Royal Terrace,	700	0	0
Robert Richardson, Esq., Bruntsfield Place,	700	0	0
C. Morrison, Esq. of Islay,	700	0	0

[1] See Statement of Funds in Calendar, 1889-90, Appendix, p. 22.

C. Jenner, Esq.,	£650	0	0
The late David Anderson, Esq., of Moredun,	600	0	0
James H. Renton, Esq., Park Lane, London,	600	0	0
Professor Sir W. Turner, LL.D.,	600	0	0
The Most Hon. The Marquis of Hartington,	500	0	0
Charles Cowan, Esq., of Logan House,	500	0	0
T. R. Buchanan, Esq., M.P.,	500	0	0
P. D. Swan, Esq., Provost of Kirkcaldy,	500	0	0
Lady Campbell of Garscube,	500	0	0
The late William Cumming, Esq., M.D., Ainslie Place,	500	0	0
The late James T. Gibson-Craig, Esq., York Place,	500	0	0
Professor Crum Brown,	500	0	0
The Goldsmiths' Company of London,	500	0	0
W. Mackinnon, Esq., of Balinakill and Loup,	500	0	0
The late Graham Menzies, Esq. of Hallyburton,	500	0	0
John Graham Menzies, Esq., Grosvenor Crescent,	500	0	0
W. D. Menzies, Esq., Grosvenor Crescent,	500	0	0
The late Miss Trail, Aberlady, by bequest,	500	0	0
Messrs William Younger & Co., Abbey Brewery,	500	0	0
The Right Hon. The Earl of Zetland,	500	0	0
Anonymous,	500	0	0

The total amount of subscriptions received was £149,048, 2s. 5d.

EARL OF ROSEBERY provided £50 a year for Lectureship on Philosophy of Natural History for five years.

WILLIAM F. CUMMING, M.D., presented a Drinking Fountain, erected in the Quadrangle of the Old Buildings, in 1886.

JOHN HOPE, W.S., presented a Drinking Fountain to the University New Buildings, 1886.

ALEX. GIBSON, Esq., Advocate, bequeathed £2000, free of legacy-duty, to the General Fund of the University.

WILLIAM M'EWAN, Esq., M.P., founder of the M'Ewan University Hall.

ADAM GIFFORD, Senator of the College of Justice, bequeathed £25,000 for the foundation of a Lectureship for promoting, advancing, teaching, and diffusing the study of Natural Theology in the widest sense of that term.

JOHN FULTON, Esq., bequeathed £3000 to General University Fund, the greater part of which has been devoted to the equipment of the new Engineering Laboratory, called the "Fulton Laboratory."

Miss Elizabeth Steven, of Bellahouston—Founder of the Steven Lectureship in connection with the Chair of Agriculture.

Alexander Low Bruce, Esq., Edinburgh, £5000
Mrs A. L. Bruce, £500
Miss A. Blackwood Bruce, £500
Other members of the Bruce family, £163
John Usher, Esq., of Norton, £8000
William Younger & Co., £1000
} Founders of the "Bruce and John Usher" Chair of Public Health in the Faculties of Medicine and Science.

James Ritchie, Esq., bequeathed £3000 for University purposes.

Highland and Agricultural Society, £896, 6s. 7d., and Royal Scottish Arboricultural Society, £584, 3s. 10d., — for further Endowment of a Chair or Lectureship in Forestry.

Dr Philip Nelson, Annan, bequeathed £84, 12s. 3d., to University Building Fund.

Bequests and Donations during 1896-97.

I. *Bequests.*

Bequest of £3000 by the late James Ritchie, formerly of Edinburgh, has been applied to the foundation and endowment of two Scholarships in Oriental Languages, to be held by candidates for the Indian Civil Service.

Bequest by the late Mrs Allan, Edinburgh, of £1500 for the endowment of a Fellowship in the Faculty of Medicine.

Legacy of £1000 to the Building Fund of the University by the late Dr W. F. Rawdon, of York.

II. *Donations.*

Contributions towards the Endowment of a Chair or Lectureship in Forestry—

1. From the Highland and Agricultural Society, £265.
2. From the Royal Arboricultural Society, £150, 13s. 10d.

Medal by University Court of the University of Aberdeen, in commemoration of the opening of the Extension Buildings of Marischal College, University, Aberdeen.

Donations towards founding a Chair of Public Health from—

John Usher, Esq. of Norton, £8000.
William Younger & Co., £1000.
Mrs A. L. Bruce, £500.
Miss A. Blackwood Bruce, £500.
Dr A. Bruce Low, Mr John Low, and Mr E. Bruce Low, £52, 10s.
Dr R. Bruce Low, £10, 10s.
Mr and Mrs Edward Bruce, £100.

Donations to Library.

Besides various valuable contributions from the Governments of Great Britain, Canada, France, India, Italy, New South Wales, Norway and Sweden, Russia, Victoria, &c., the University has, in the course of the year 1896-97, received Donations from the following Universities :—Aberdeen, Basle, Birmingham, Bombay, Buenos Ayres, Calcutta, California, Christiania, Cornell Columbia College, New York, Harvard, Johns Hopkins, Imperial University of Japan, Königsberg, London University, Leyden, Madras, Madrid, Rostock, Toronto, Utrecht, Warsaw, Yale. Many other public institutions at home and abroad have also sent their publications :—The Royal Society of Edinburgh ; the Royal Scottish Geographical Society ; the Society of Scottish Antiquaries ; the Royal Observatory, Edinburgh ; the Physical Society, Edinburgh ; the Church of Scotland ; the Highland and Agricultural Society ; the Fishery Board for Scotland ; the Royal Irish Academy ; the Royal Academy of Medicine, Ireland ; the British Museum ; the Science and Art Department, South Kensington ; National Library of Greece ; the Royal Geographical Society, London ; the Astronomical Society, London ; the Greenwich Observatory ; the Musée Guimet ; the Smithsonian Institution ; the United States National Museum ; the Library of the Surgeon-General's Office ; the Museum of Comparative Zoology, Harvard ; the New York State Museum ; the Royal Society, Victoria ; the Australian Museum, Sydney ; the New Zealand Institute ; the Canadian Institute ; the Geological Survey of Canada ; the Geological Survey of India ; the Archæological Survey of India ; the Geological Survey of the United States ; the Geological Survey of Minnesota ; The Geological Survey of Missouri ; the Department of Agriculture, Michigan ; the Geological Survey of Iowa ; Institution of Civil Engineers ; the Trustees of the Baird Lectures ; the Trustees of the Hibbert Lectures ; the Polled Cattle Society ; the Suffolk Sheep Society ; the Clydesdale Horse Society ; the Franco-Scottish Society ; the American Jewish Historical Society ; the Syndicates of the Cambridge University Press ; the Corporation of the City of Edinburgh ; the Philatetic Society, &c., &c.

An addition to the Cleghorn Collection was made by Major Sprot of Stravithie. Other private donors were :—

His Royal Highness the Maharajah of Jeypore—Four important works dealing with Jeypore, Rajputana.

The Marquis of Lothian—The Genus Masdevallia, with plates and descriptions by Florence H. Woodward.

The Duc de Loubat—Il manoscritto Messicano Vaticano 3773. Repridotto in fotocromografia.

Sir C. Scott Moncrieff—Chansons populaires Arabes, en dialecte du Caire.

Sir Bhagrat Sinh Jee—A short history of Aryan Medical Science.

Professor Armstrong—The Goulbourn Weir, Victoria, and its dependent system of works by S. Murray.
Professor Kennedy—Arabic Grammar, by N. Socin. 2nd English ed. transl. from the 3rd German ed.
Professor G. O. Sars—An account of the Crustacea of Norway. Vol. II.
Messrs W. & R. Chambers—Life and Works of Robert Burns; Chambers's Journal for 1896.
Messrs A. & C. Jack—Poetical works of Robert Burns, ed. by W. E. Henley and T. F. Henderson.
Mr S. R. Crockett—Six volumes of his literary works, viz., Cleg Kelly, Bog-myrtle and Peat, the Lilac Sunbonnet, the Stickit Minister, the Raiders, and the Men of the Moss-Hags.
Rev. W. Campbell—The Articles of Christian Instruction in Favorlavig-Formosan.
Colonel Bailey—Several works dealing with Forestry.
Major-General J. W. Hoggan—Several theological volumes.
Dr Dyce Duckworth—The sequels of disease. Lumleian Lectures, 1896.
Rev. J. Primrose—The mother Anti-Burgher Church of Glasgow.
Mr L. Horton Smith—Ars Tragica Sophoclea cum Shaksperiana comparata.
Mr J. Collinson—What it costs to be vaccinated.
Rev. D. Macrae—Anecdotes and reminiscences of George Gilfillan.
Mr David Douglas—The Letters and Journals of Lady Mary Coke.
Mr H. C. Burdett—Burdett's Hospitals and Charities, 1896; being the year-book of philanthropy.
Dr J. C. M'Vail—Annual Reports to County Council of Stirling and Dumbarton.
Mr J. S. Alden—A theory of the structure of matter.
M. Lorenz—Le folk-lore de l'ile Maurice.
Mr C. Voysey—Theism as a science of Natural Theology and Natural Religion.
Mr W. H. Rattigan—A digest of civil law for the Punjab.
Mr C. F. Andrews—The relation of Christianity to the conflict between capital and labour.
Mr A. Hermann—Untersuchungen über das schottische Alexanderbuch.
Mr H. R. Storer—The memorials of Edward Jenner (1796-1896).
Mr E. W. Emerson—A history of the gift of painless surgery.
Mr C. Honoré—Loi du rayonnement thermique solaire.
Mr W. R. Turnbull—The heritage of Burns.
Rev. J. Adamson—The spirit of Power, as set forth in the Book of the Acts of the Apostles.
Professor Balfour—Manuscripts relating to Edinburgh University.
Professor A. Crum Brown—Inaugural Address, Royal Medical Society, Edinburgh, 1896.
Professor Saintsbury—Corrected impressions. Essays on Victorian writers.

ABSTRACT OF THE ACCOUNTS OF
The University of Edinburgh
FOR THE YEAR ENDING 31ST AUGUST 1896.

CAPITAL.

I. General University Fund :—					
Funds at beginning of year				£69,928	18 3
Added during year—					
Surplus of Revenue over Expenditure for year . . .				294	18 4
				£70,223	16 7
II. Funds partly or wholly unappropriated to particular purposes :—					
Funds at beginning of year	£125,190	0 1			
Added during year—					
Balance of Legacy by the late Dr Philip Nelson to the University Building Fund . . .	£34 12 3				
Bequest by the late James Ritchie, Esq., to be devoted to such purpose or purposes in connection with the University as the Principal may determine . . .	2,954 17 0				
Surplus of Revenue over Expenditure for year . .	166 8 0				
		3,155	17 3		
				128,345	17 4
III. Funds appropriated to Particular Purposes other than Bursaries, Scholarships, Fellowships, and Prizes :—					
Funds at beginning of year . . .	£114,787	9 7			
Added during year—					
Further contributions from the Highland and Agricultural Society and the Scottish Arboricultural Society towards endowment of the Lectureship in Forestry .	£340 13 10				
Carry forward,	£340 13 10	£114,787	9 7	£198,569	13 11

Brought forward,	£340	13	10	£114,787	9	7	£198,569	13	11
Bequest by the late Mrs Nichol for the foundation and endowment of an Assistantship in the Physical Laboratory . .	2,000	0	0						
Surplus on Pension Fund .	2,620	7	7						
Surplus of Revenue over Expenditure . . .	118	18	10						
				5,080	0	3			
							119,867	9	10

IV. Funds for Bursaries, Scholarships, Fellowships, and Prizes:—

Funds at beginning of year . . .				£308,885	2	8				
Added during year—										
Amount allocated from a Bequest by the late Earl of Moray by his Trustees, for the endowment of Research in the University . .	£20,000	0	0							
Residue of the estate of the late Dr Robert Anstruther Goodsir, bequeathed for additional endowment of the Goodsir Memorial Prize or Fellowship . . .	2,220	3	0							
Balance of residue of the estate of the late Dr Robert Orr Crichton, of Lynn, for endowment of the Crichton Bursaries and Scholarships	50	0	0							
Accrued Income on Legacy by the late George Scott, Esq., received from his Executors . . .	66	4	11							
Sum received from Dr Gunning, being unapplied interest on Bond for £5000 granted by him in favour of the University, for the institution of Medical Prizes, which are presently paid by Dr Gunning through his own Agents . . .	127	8	0							
Carry forward,	£22,463	15	11	£308,885	2	8	£318,437	3	9

Brought forward,	£22,463 15 11	£308,885 2 8	£318,437 3 9	
Sum received from him in connection with a similar Bond for Divinity Prizes .	440 0 0			
Surplus of Revenue over Expenditure for year . .	1,717 2 8			
		24,620 18 7		
			333,506 1 3	

V. ESKBANK FEU-DUTIES—CASUALTY FUND.

Fund at beginning of year	£253 7 3		
Added during the year :—			
Surplus of Revenue over Expenditure for year	8 18 9		
		262 6 0	
Total Funds at 31st August 1896 . . .		£652,205 11 0	

NOTE.—The above Funds are stated at their book value or cost price. The market value of the Funds at the 31st August 1896 exceeded the book value by £58,764, 3s. 7d. No notice is taken above of the University Buildings, New Medical School, Music Class Room, Principal's Official Residence, and Lecture Hall in Park Place, or of the Library, Museum, and Furnishings of the University, as the values of these are not known.

REVENUE AND EXPENDITURE.

I. GENERAL UNIVERSITY FUND.

Revenue.	Revenue.	Expenditure.
1. Matriculation Fees	£2,936 17 0	...
2. Entrance Fees from Students not matriculated	23 0 0	
3. Fees in lieu of Matriculation Fees . .	61 19 0	
4. Preliminary Examination Fees . . .	354 8 0	
5. Graduation Fees :—		
(1) Arts £632 16 0		
(2) Science 261 8 0		
(3) Medicine . . . 6,856 7 6		
(4) Divinity 29 8 0		
(5) Law 87 3 0		
(6) Music 8 8 0		
	7,875 10 6	
6. Fees of Registration of Members of General Council	320 0 0	
7. Fees of Access to Library . . .	53 11 0	
8. Income from Accumulations of the General University Fund	2,120 4 6	
Carry forward,	£13,745 10 0	£ ...

		Revenue.			Expenditure.		
	Brought forward,	£13,745	10	0	£	...	
9.	Income from Funds bequeathed for general purposes :—						
	(1) Straton Fund . .	£446	1	6			
	(2) Cox Fund . . .	69	7	10			
	(3) Gibson Fund . .	64	14	2			
	(4) Ritchie Fund . .	39	0	0			
		619	3	6			
10.	Income from Funds partly appropriated to particular purposes, the Surplus Income of which falls to general purposes :—						
	(1) Leith Harbour Annuity Fund	£633	18	11			
	(2) Reid Fund . . .	590	9	2			
	(3) Baxter Salary Fund .	14	13	0			
		1,239	1	1			
11.	Income from Funds specifically appropriated by Deed of Endowment to Class Expenses :—						
	(1) Fund for Chair of Engineering . .	£23	4	0			
	(2) Fund for Chair of Geology . . .	45	10	10			
	(3) Fund for Chair of Fine Art	40	16	10			
	(4) Fund for Chair of Commercial and Political Economy . . .	74	0	0			
	(5) Gilchrist Fund for purchase of apparatus .	79	15	0			
		263	6	8			
12.	Income from Parliamentary Grant . .	25,870	0	0			
13.	Income from Endowment of Chairs in the Faculty of Divinity	252	8	2			
14.	Surplus on Fee Fund	1,919	17	11			
15.	Royalty from Publisher of University Calendar	100	0	0			
16.	Fees from Societies for Use of Rooms, &c. .	29	10	0			
	Expenditure.	£44,038	17	4			
1.	Expenses of Administration :—						
	(1) University Court	...			£842	7	3
	(2) Senatus Academicus	...			1,796	12	6
	(3) General Council	...			180	6	2
	(4) Curators of Patronage	...			15	15	0
	(5) Editing University Calendar . . .	...			50	0	0
	Carry forward,	£44,038	17	4	£2,885	0	11

				Revenue.	Expenditure.
	Brought forward,			£44,038 17 4	£2,885 0 11
(6)	Students' Representative Council . .			...	35 0 0
(7)	Factor			...	898 2 9
(8)	Law Agents			...	82 0 2
(9)	Auditor			...	50 19 0
					£3,951 2 10
2.	Salaries to Principal and Professors :—				
	(1) Salary to Principal in accordance with Section III. of Ordinance No. 27 of the Scottish Universities Commissioners	£1,048 17 10			
	(2) Salaries to Professors in accordance with Section VII., Subsection 1 (*b*), of said Ordinance .	4,343 5 2			
	(3) Salaries to Professors in accordance with Section VII., Subsection 2, of said Ordinance . .	1,500 0 0			
	(4) Salaries to Professors in accordance with Sections IX. and XI., Subsection 2 (*d*), of said Ordinance . . .	3,542 0 0			
	(5) Salaries to Professors in the Faculty of Divinity in accordance with Section XI., Sub-section 2, (*e*) of said Ordinance .	452 8 2			
					10,886 11 2
3.	Provision for Pensions to Retired Professors .				5,000 0 0
4.	Upkeep of Buildings :—				
	(1) Buildings and Furnishings	£2,561 3 6			
	(2) Lighting, Heating, and Cleaning . . .	1,172 3 9			
	(3) Public Burdens and Feu-Duties . . .	517 15 0			
	(4) Insurance . . .	215 12 4			
					4,466 14 7
5.	Equipment and Upkeep of Library . .				2,555 18 1
6.	Equipment and Upkeep of Museums .				415 0 0
7.	Equipment and Upkeep of Laboratories, including Class Expenses				3,220 3 2
	Carry forward,			£44,038 17 4	£30,495 9 10

	Revenue.	Expenditure.
Brought forward,	£44,038 17 4	£30,495 9 10
8. Lecturers and Assistants		9,167 15 0
9. Examiners		2,463 3 1
10. Service		1,141 1 9
11. Class Medals and Prizes		260 16 8
12. Graduation Expenses		190 2 8
13. Incidental Expenses and Grants		25 10 0
	£44,038 17 4	£43,743 19 0
Deduct Transfers to other Funds	10,843 5 2	10,843 5 2
Carried to Abstract	£33,195 12 2	£32,900 13 10

II.—Fee Fund Account and Salaries Account:—

	Revenue.	Expenditure.
1. Fee Fund Account	£23,919 0 0	£23,919 0 0
2. Fees collected for Professors and Lecturers not falling into Fee Fund,	486 3 0	486 3 0
3. Salaries Account	9,560 19 6	9,560 19 6
	£33,966 2 6	£33,966 2 6
Deduct Transfers to other Funds	1,919 17 11	1,919 17 11
Carried to Abstract	£32,046 4 7	£32,046 4 7

III.—Funds Partly or Wholly Unappropriated to Particular Purposes:—

	Revenue.	Expenditure.
1. Annuity under the Edinburgh Corporation Stock Act, 1894	£1,687 1 0	£1,687 1 0
2. Reid Fund	1,593 15 10	1,593 15 10
3. Reid Professorship of Music, Assistants, and Expenses Fund	520 0 0	335 10 0
4. Straton Fund	446 1 6	446 1 6
5. Cox Fund	69 7 10	69 7 10
6. Gibson Fund	64 14 2	64 14 2
7. University Building Fund	1 4 6	2 1 6
8. James Ritchie's Bequest	39 8 10	56 13 10
	£4,421 13 8	£4,255 5 8
Deduct Transfers to other Funds	3,270 12 2	3,270 12 2
Carried to Abstract	£1,151 1 6	£984 13 6

IV.—Funds appropriated to particular purposes other than Bursaries, Scholarships, Fellowships, and Prizes.

	Revenue.	Expenditure.
1. Baxter Salary Fund	£583 13 6	£583 13 6
2. Bell Chair of Education	361 12 0	361 11 10
3. Celtic Chair	514 14 8	514 14 8
4. Lectureship in Procedure and Evidence	100 0 0	100 0 0
5. Chair of Commercial and Political Economy	524 0 0	524 0 0
6. Chair of Engineering, viz. :—		
(1) Fund for Professor's Salary	193 6 8	193 6 8
(2) Fund for Expenses of the Chair	23 4 0	23 4 0
7. Chair or Lectureship on Forestry	217 14 5	221 9 6
8. Gilchrist Fund	79 15 0	79 15 0
9. Gifford Lectureship	743 7 4	743 7 4
10. Muir Chair of Sanskrit	201 17 7	201 17 7
11. Murchison Chair of Geology, viz. :—		
(1) Fund for Professor's Salary	181 0 6	181 0 4
(2) Fund for Expenses of the Chair	36 3 8	36 3 8
12. Nichol Foundation	...	18 13 11
13. Pulteney Chair of Agriculture	39 5 6	39 5 6
14. Chair of Public Health	141 7 6	...
15. Pension Fund	5,118 18 0	2,498 10 5
16. Steven Lectureship on Agriculture	94 5 0	94 5 0
17. Thomson Funds, viz. :—		
(1) Fund for Salary of Professor of Natural History.	37 9 0	37 9 0
(2) Fund for Expenses of Chair of Geology	9 7 2	9 7 2
18. Watson Gordon Professorship of Fine Art., viz. :—		
(1) Fund for Professor's Salary	426 9 4	426 9 4
(2) Fund for Expenses of the Chair	40 16 10	40 16 10
19. Lectures on Agricultural Chemistry	80 0 0	80 0 0
20. Chair of Conveyancing	105 0 0	105 0 0
	£9,853 7 8	£7,114 1 3
Deduct Transfers to other Funds	3,341 1 7	3,341 1 7
Carried to Abstract	£6,512 6 1	£3,772 19 8

V.—Funds for Bursaries, Scholarships, Fellowships, and Prizes.

	Revenue.	Expenditure.
1. Aitken Scholarship	£95 16 11	£84 19 5
2. Ardvorlich Bursary	15 9 4	15 9 4
Carry forward,	£111 6 3	£100 8 9

	Revenue.	Expenditure.
Brought forward,	£111 6 3	£100 8 9
3. Neil Arnott Prize	40 12 0	40 12 0
4. Neil Arnott Scholarship	34 11 2	37 4 4
5. Baxter Mathematical and Philosophical Scholarships	121 9 6	91 15 3
6. Baxter Natural and Physical Science Scholarships	145 3 10	74 8 10
7. Misses Baxter of Balgavie's Scholarships	155 14 0	79 7 10
8. John Edward Baxter Scholarships, viz. :—		
(1) Fund for Scholarships	248 5 0	209 6 9
(2) Fund for Examiners' Fees	10 17 3	25 13 8
9. Bruce of Grangehill and Falkland Bursaries and Scholarships	491 6 5	421 6 10
10. Beaney Prize	33 16 8	33 16 8
11. Buchanan Scholarship	39 3 0	39 3 0
12. Buchanan Bursary	22 1 4	...
13. Bucher Scholarship	104 12 6	14 5 10
14. Bayne Bursary	24 3 4	12 1 8
15. Brown Bursaries	24 3 4	24 3 4
16. Blair Arts Bursary	9 6 0	9 6 0
17. Cairns Bursary	18 7 4	18 6 8
18. Cameron Prize	88 14 6	...
19. Dr John Aitken Carlyle's Medical Bursaries	54 2 8	40 12 0
20. Cousin Prize	14 4 8	14 9 11
21. Bailie Cousin Bursary	27 1 4	40 12 0
22. Cobb Scholarship	31 8 4	...
23. Crichton Bursaries, and Scholarships	1,009 13 3	1,239 4 4
24. Drummond Scholarship, viz. :—		
(1) Fund for Scholarship	101 14 10	101 14 10
(2) Fund for Examiners' Fees	7 5 0	...
25. William Dickson Travelling Fund	85 1 4	68 4 2
26. Dundas Bursaries	42 0 9	41 0 10
27. Dalgleish and Macmorran Bursary	13 8 4	13 8 4
28. Edinburgh University Endowment Association's Arts Bursaries	120 0 0	80 0 0
29. Ettles' Divinity Scholarships	99 10 6	107 18 3
30. Ettles' Medical Scholarship	33 16 8	...
31. Ellis Prize	24 19 10	...
32. Exhibition of 1851 Science Scholarships	150 0 0	150 0 0
33. Falconer Memorial Fellowship, viz.:—		
(1) Fund for Fellowship	109 6 2	109 7 3
(2) Fund for Examiners' Fees	4 2 2	...
34. Fothringham and Forrest Bursaries	37 15 2	19 7 5
35. James Fairbairn Scholarship	32 7 0	32 12 9
36. Freeland Barbour Fellowship	48 6 8	...
Carry forward,	£3,769 18 1	£3,289 19 6

	Revenue.	Expenditure.
Brought forward,	£3,769 18 1	£3,289 19 6
37. Fraser Bursaries	42 1 0	42 1 0
38. Donald Fraser Bursary	48 6 8	48 18 8
39. Ford Bursaries	32 4 6	32 4 6
40. Glover Divinity Scholarship	37 12 10	37 10 3
41. Gray Scholarships	83 11 2	41 15 7
42. Guthrie Fellowship	89 5 10	83 0 0
43. Grierson Bursaries	332 11 5	329 7 2
44. Gunning Scholarships	1 4 8	...
45. Gunning Medical Prizes	9 12 9	...
46. Gunning Divinity Prize	0 14 5	0 11 6
47. Goodsir Memorial Prize.	99 14 0	43 2 6
48. Hamilton Philosophical Fellowship, viz.:—		
(1) Fund for Fellowship	88 9 0	88 9 0
(2) Fund for Examiners' Fees	5 1 6	..
49. Harrison Bursary	32 2 10	32 2 10
50. Hope Prize	78 19 1	57 6 8
51. Robert Hunter Bursaries	34 12 6	...
52. Jardine Bursary	42 3 0	58 5 2
53. Jardine of Thorlieshope Bursaries	145 10 4	186 15 1
54. Johnston of Harthope Bursary	15 14 2	35 1 6
55. Jeffrey Scholarships	141 7 6	132 19 6
56. Robert Johnston Bursaries	54 12 4	54 12 4
57. Archibald Johnstone Bursary	12 13 6	...
58. David Kidd Divinity Scholarship	33 4 8	0 17 11
59. Kelland Memorial Prize	4 9 2	4 9 0
60. General Lang's Bequest	14 3 0	1 6 3
61. Lockerby Bursary	30 19 8	30 19 8
62. Lorimer Travelling Scholarship	36 10 0	1 6 8
63. Leckie Mactier Fellowship	77 6 8	77 6 8
64. Leighton and Struthers Bursary	21 16 10	0 8 9
65. Charles Maclaren Scholarship, viz.:—		
(1) Fund for Scholarship	107 6 6	54 5 8
(2) Fund for Examiners' Fees	7 6 10	19 2 5
66. Maxton Scholarship	40 19 8	40 19 8
67. Mackenzie Classical Scholarship	118 9 0	117 9 0
68. Macpherson Bursaries	82 5 10	41 10 0
69. Marshall Bursary	31 8 4	31 8 4
70. Mackenzie Bursaries in Anatomy	38 13 4	38 13 4
71. Mackinnon Bursaries	59 1 8	36 5 0
72. Mann Bursaries	77 6 8	25 15 8
73. Mackie Bursaries	58 0 0	58 0 0
74. Maclaurin Bursary	71 1 0	...
75. Maule Bursaries	79 6 8	80 17 4
76. Milner Fothergill Prize	9 13 4	15 0 0
Carry forward,	£6,197 11 11	£5,270 4 1

		Revenue.	Expenditure.
	Brought forward,	£6,197 11 11	£5,270 4 1
77.	Muirhead Prize	15 14 2	16 18 4
78.	M'Lurg and Penman Bursary	19 13 2	15 9 4
79.	Miller Bursary	23 4 0	23 4 0
80.	Mitchell and Shortt Bursary	21 6 0	21 6 0
81.	Mackenzie (Stornoway) Bursary	26 2 0	...
82.	Moray Foundation	...	...
83.	Newton Bursaries	84 3 8	73 17 7
84.	Nairne Bursary	16 2 4	16 2 4
85.	Prizes in Sanskrit	...	5 5 0
86.	Pitt Club Classical Scholarship	55 12 6	56 2 6
87.	Pitt Club Theological Scholarship	103 14 8	104 6 11
88.	Patrick Bursaries	131 9 11	130 10 0
89.	Pattison Bursary	10 19 10	...
90.	Patterson Bursary	15 11 8	...
91.	Bailie John Penman Bursary	14 5 2	...
92.	Rev. John Penman High School Bursaries	8 11 0	...
93.	Pringle and Wardrop Bursary	16 12 6	6 3 6
94.	Rhind Scholarships	165 14 5	84 5 2
95.	Renton Bursary in Arts	18 16 6	19 2 3
96.	Renton Bursary in Divinity	19 5 0	9 13 0
97.	Ramsay Bursary in Arts	10 14 10	10 14 10
98.	Ramsay Bursary in Divinity	16 2 4	16 2 4
99.	Horsliehill Scott Bursary	64 8 0	64 8 0
100.	Shaw Philosophical Fellowship	135 5 7	135 5 6
101.	Steven of Bellahouston Scholarship	72 10 0	72 10 0
102.	Syme Surgical Fellowship, viz. :—		
	(1) Fund for Fellowship	101 10 8	0 6 7
	(2) Fund for Examiners' Fees	8 11 0	0 1 9
102.	Scott and Dunbar Prize	26 18 4	26 19 4
103.	Dobbie Smith Prize	4 17 6	...
104.	Mackay Smith Scholarships, viz. :—		
	(1) Fund for Scholarships	96 13 4	72 10 0
	(2) Fund for Examiners' Fees	3 4 0	0 19 11
105.	Stark Scholarship	54 2 8	...
106.	James Scott Scholarship	41 1 8	41 1 8
107.	Stewart Bursaries	34 16 0	34 16 0
108.	George Scott Scholarship	31 8 4	6 13 6
109.	Tarsappie Bursary	5 0 6	...
110.	Trevelyan Scholarship	30 3 2	15 1 8
111.	Trotter and Penman Bursary	12 5 8	0 2 3
112.	Vans Dunlop Scholarships	2,330 1 9	2,086 7 10
113.	Wightman Prize	11 12 0	...
114.	Robert Wilson Prize	8 0 6	8 10 4
115.	Webster Bursaries	128 16 2	80 13 0
	Carry forward,	£10,192 14 5	£8,525 14 6

	Revenue	Expenditure.
Brought forward,	£10,192 14 5	£8,525 14 6
116. John Welsh Bursaries	194 5 6	155 16 9
117. Whitelaw Bursaries	67 17 6	68 13 6
118. King William III. Bursaries	50 0 0	37 10 0
119. Weir, Jenkins, Hepburn, and Lightbody Bursary	11 0 2	11 0 2
120. Wight, M'Call, and Christie Bursary	12 12 4	12 12 4
Carried to Abstract	£10,528 9 11	£8,811 7 3

VI. ESKBANK FEU-DUTIES—CASUALTY FUND.

	Revenue.	Expenditure.
Total amount of Feu-Duties and Expenditure therefrom	£487 12 1	£478 13 4
Deduct transfer to other Funds	461 1 2	461 1 2
Carried to Abstract	£26 10 11	£17 12 2

ABSTRACT OF REVENUE AND EXPENDITURE.

	Revenue.	Expenditure.
I. GENERAL UNIVERSITY FUND	£33,195 12 2	£32,900 13 10
II. FEE FUND ACCOUNT AND SALARIES ACCOUNT	32,046 4 7	32,046 4 7
III. FUNDS PARTLY OR WHOLLY UNAPPROPRIATED TO PARTICULAR PURPOSES	1,151 1 6	984 13 6
IV. FUNDS APPROPRIATED TO PARTICULAR PURPOSES OTHER THAN BURSARIES, SCHOLARSHIPS, FELLOWSHIPS, AND PRIZES	6,512 6 1	3,772 19 8
V. FUNDS FOR BURSARIES, SCHOLARSHIPS, FELLOWSHIPS, AND PRIZES	10,528 9 11	8,811 7 3
VI. ESKBANK FEU-DUTIES -CASUALTY FUND	26 10 11	17 12 2
TOTAL REVENUE AND EXPENDITURE,	£83,460 5 2	£78,533 11 0

The University Court.

ABSTRACT OF THE PROCEEDINGS OF THE UNIVERSITY COURT, FROM 18TH MAY 1896 to 1ST MAY 1897.

MONDAY, 18TH MAY 1896.—The Minutes of last meeting were submitted and approved.

Intimation was made of a gift to the University by the Aberdeen University Court of a copy of the commemoration medal in bronze, "designed to mark an important recent event in the history of the University of Aberdeen."

Intimation was made of a bequest to the University by the late Mrs Jane Allan, 5 Magdala Crescent, Edinburgh, widow of Mr John Allan, M.D., H.E.I.C.S., of £1500 for the foundation of a Fellowship in the Faculty of Medicine.

Certain alterations proposed by the Students' Representative Council on laws 6 and 7 of chapter 1. section 2, of the Constitution of the Council were approved.

The Court having considered a statement and recommendation by the Faculty of Medicine, agreed that the fee for the class of Advanced Practical Physiology should in future be £4, 4s.

It was intimated that a grant of £50 by the Highland and Agricultural Society had been received towards instruction in Forestry for the current year.

Payment of fees to Additional Examiners for Preliminary and Degree Examinations was authorised.

The reports of the Finance and Works Committees, and of the Committee on the Medical Education of Women, were submitted and approved.

MONDAY, 15TH JUNE 1896.—The Minutes of last meeting were submitted and approved.

Draft Ordinance (General No. 40—Regulations for Degrees in Science, supplementary to Ordinances Nos. 12, 22, 35, and 134) was remitted to the Draft Ordinances Committee for consideration and report.

It was intimated that Professor Rhys, Oxford, had accepted the appointment of Additional Examiner in Celtic for the Degree of D.Litt. for the current academical year.

The Senatus reported their reasons for granting, under Section xxii.

of Ordinance No. 11, privileges specified in their extract minute to certain students.

A proposal made by the Senatus to the Universities Commissioners to institute by amendment of Ordinance No. 11, Section xi., (1), a new Honours Group for Graduation in Arts, to be styled "Economic and Political Science," was referred to the Draft Ordinances Committee.

On a report by the Senatus that they had approved of the institution of an Honours Course in Political Economy, the fee for the course was fixed at £3, 3s.

The recommendations of the Senatus as to appointment of Examiners for Heriot Fellowships were approved.

The Senatus reported that a new Vans Dunlop Scholarship had been instituted in the subjects of Pathology and Medical Jurisprudence.

The Senatus also reported that, on the recommendation of the Faculty of Medicine, they had assigned the Pattison Bursary to the subject of Clinical Surgery.

It was intimated that the University Endowment Association had resolved to appropriate £120 for two Arts Bursaries of £20 each (or one of £40), tenable for three years, to be open for competition at the beginning of next winter session.

Various reports submitted by the Finance Committee were approved.

MONDAY, 13TH JULY 1896.—The Minutes of last meeting were submitted and approved.

It was reported that Ordinances Nos. 135 to 137, 139 to 144, 147 and 148 had received the approval of Her Majesty in Council on 29th ult.

The recommendations by the respective Professors as to the appointment of University Assistants for next academical year, which had been received up to the date of Meeting, were approved, and such of them as are University Lecturers were continued in their Office as Lecturers for the same period.

The University Lecturer in Agricultural Chemistry was reappointed for next academical year.

The Court appointed as their representatives on the Joint Board of Examiners for the year from 1st February next, Professor Saintsbury (English), Professor Butcher (Classics), and Mr F. P. Walton, LL.B. (Modern Languages); and for the remainder of his present period of office as an Additional Examiner in the University, Mr D. B. Mair, M.A. (Mathematics and Dynamics).

The Court resolved, after consultation with the Senatus, to admit women students to the advanced lecture courses in the department of Chemistry as qualifying for Degrees in Science. The following applications for Recognition were granted:—(1) Dr R. M. Buchanan, Glasgow (Medical Jurisprudence); (2) Dr J. Batty Tuke, Edinburgh, and Dr John Macpherson, Larbert, conjointly (Mental Diseases); and (3) Dr George Mackay, Edinburgh (Ophthalmology.) It was resolved to recognise the Universities of Oxford, Cambridge, and Dublin, and

the four Inns of Court, London, for purposes of Graduation in Law under Ordinance (39), III. (1), and subject to section II. Application for renewal of Recognition by the recognised Schools in Edinburgh for the Medical Education of Women was granted.

The Court approved of the regulations for administering the Nichol Foundation, instituting an Assistantship in connection with the Chair of Natural Philosophy, as prepared and submitted by the late Mrs Nichol's Trustees and the Professor of Natural Philosophy.

An amendment suggested by the Draft Ordinances Committee on Draft Ordinance (General No. 40, Regulations for Degrees in Science, supplementary to Ordinances Nos. 12, 22, 35, and 134) was approved. On a report by the same committee, the Court agreed in the recommendation of the Senatus to the Universities Commissioners, that a new Honours Group for Graduation in Arts with Honours be instituted by amendment of Ordinance No 11, sec. XI. (1); but that it be styled "Political and Economic Science." It was reported that the Ormerod Entomological collection had, with consent of Sir R. Murdoch Smith, been placed temporarily in the Edinburgh Museum of Science and Art.

A gift to the University by Thomas M'Kie, Esq., Advocate, of a bust of Thomas Carlyle by Woolner, was accepted with thanks to the donor.

Various reports submitted by the Business and Law, Finance, and Works Committee, were submitted and approved.

Monday, 19th October 1896.—The Minutes of last meeting were submitted and approved.

The Court appointed Professor Hardie, in room of Professor Butcher, resigned, to be an Examiner in Classics on the Joint Board of Examiners for the year from 1st February next.

It was reported that the following Ordinances of the Universities Commissioners had been laid before Parliament, viz. :—No. 151 (General No. 34—Regulations as to Resignation of Principals and Professors); No. 152 (General No. 35—Regulations as to Examinations, supplementary); No. 153 (General No. 36—Regulations as to Fees, supplementary); No. 154 (General No. 37—Regulations for the Degree of Bachelor of Divinity, supplementary). The Commissioners' Draft Ordinance (Glasgow, Aberdeen, and Edinburgh, No. 3—Regulations for Degrees in Medicine, supplementary to Ordinances Nos. 14, 15, and 16) was remitted to the Draft Ordinances Committee).

Principal Sir William Muir was appointed to be a Curator of Patronage for a further term of Office of three years from 5th December next, and as a Governor of the Fettes Trust for a further term of office of five years from 1st December next.

Professor Sir William Turner was appointed to be the University's Representative on the General Medical Council for a further term of office of five years from 18th December next.

The Members of the Standing Committees, and the Court's quota of

Members on the Library and Museum Committees, were appointed for the current academical year.

The recommendations by the respective Professors, received since last meeting, as to the appointment of University Assistants for the current academical year, were approved.

The Assistant in Latin, and the senior Assistants in Natural Philosophy, Physiology, and Materia Medica, were appointed Lecturers for the same period. The Assistant in connection with the Physical Laboratory (under the Nichol Foundation) was appointed for the current academical year.

The Additional Examiners in Sanskrit, Classical Archæology, Political Economy, Astronomy, Geology, History, and Music, were reappointed for the current academical year.

A recommendation of the Senatus that an Advanced Course of laboratory instruction in Agricultural Chemistry be instituted was approved. The fee was fixed at £4, 4s.

The Senatus reported the reasons for granting to certain students privileges conferred by Section xxii. of Ordinance No. 11.

A Report by the Finance Committee on Lectureships, Assistants, and Class Expenses for 1896-7 was submitted and approved. Various Reports of the Finance Committee were submitted and approved.

The Report of a Committee of the Court appointed to prepare a working scheme for the purposes by the Earl of Moray Endowment was submitted, and approved as adjusted.

WEDNESDAY, 4TH NOVEMBER 1896.—SPECIAL MEETING.—The following letters were read :—(1) from Mr G. Somerville, clerk to the Edinburgh University Buildings Extension Trustees, to the Secretary, University Court :—

Edinburgh, *2nd November* 1896.

SIR,—As the University Court is aware, the Acting Committee for the University of Edinburgh Buildings Extension Scheme applied to Parliament in 1886 for power to acquire a site in Park Street and Teviot Row, and to erect a University Hall thereon ; and under the Edinburgh University Buildings Extension Act, 1886, Trustees were incorporated by the name of the Edinburgh University Buildings Extension Trustees to carry out these purposes.

The Act was applied for in consequence of Mr M'Ewan, M.P., a member of the Acting Committee, having voluntarily offered to provide a sum of £40,000 for the erection of the hall.

After the Act was obtained, the subjects in Park Street and Teviot Row were acquired by the trustees, a grant of £8000 was voted by Parliament towards the cost of the site, and the balance was paid by Mr M'Ewan. Plans having thereafter been obtained from Dr Rowand Anderson, the Architect of the new Medical Buildings of the University, the erection of the hall, which is known as "the M'Ewan Hall," has since been in progress.

I am now desired by the Trustees to mention, for the information of the University Court, that they expect that the work will be completed so as to admit of the opening of the M'Ewan Hall early in 1897.

Section 8 of the Edinburgh University Buildings Extension Act, 1886, provides as follows :—"Upon the completion of the buildings to be erected on the said lands, in accordance with the provisions of this Act, and on the complete fulfilment and discharge of all obligations undertaken by the Trustees in connection therewith, the Trustees shall convey and transfer the same to the University of Edinburgh or to the Senatus Academicus of that body for behoof of the University, or to any other body duly authorised on its behalf to accept and maintain the same."

In consequence of recent University legislation, the Trustees will fall to convey the M'Ewan Hall to the University Court.

I enclose letter which the Trustees have received from the donor, Mr M'Ewan, making certain suggestions as to the use of the Hall ; and it will be a great satisfaction to the Trustees if the University Court wil intimate its approval of these suggestions, and consent to give effect thereto.—I am, &c.,

(Signed) G. Somerville, Clerk to Trustees.

(2.) From William M'Ewan, Esquire, M.P., to the Edinburgh University Buildings Extension Trustees :—

16 Charles Street, Berkeley Square,
London, 31*st October* 1896.

Dear Sirs,—As you will soon have to inform the University Court that the M'Ewan Hall is approaching completion, I shall feel obliged if you will, at the same time, submit this letter to the Court.

You are aware that, when I originally offered to build a Hall for the University, the building contemplated was one moderate in size, which would supply a long felt academic want, and be used exclusively for University purposes. On more careful consideration, however, I came to the conclusion that a building on that scale would not adequately finish the magnificent pile of which it was to form part. I accordingly resolved that, whatever the cost might be, the architectural symmetry and beauty of the buildings should be maintained, although that might necessitate the erection of a Hall exceeding the requirements of the University.

I did not, however, forget that the City with which the University has been continuously associated for three centuries, and whose interests are identical with those of the University, had no hall of sufficient size available for public functions in which the citizens generally are interested ; and I considered that, if a proper representation of the facts were laid before the University Court, it would willingly consent to give the use of the Hall to the Corporation, for such purposes, each occasion being considered by the University Court in the spirit of this letter. As provision for an orchestra is being made, and an organ is now in course of construction, the Court might also, under due regulation, sanction the use of the Hall for concerts of a high class.

In making these suggestions, I would desire it to be understood that I do not propose that the Hall should be used for sectarian or political meetings, or for purposes of any kind which are at variance with the functions of a University. I feel confident, in expressing these wishes, that the University Court will entertain them in a broad and liberal spirit, and will regard them as consistent with the welfare and dignity of the University and the City, which have been so long associated with each other, and whose prosperity is so closely intertwined.

I would simply add, with the view of strengthening these suggestions, that, while the original intention was to provide a hall for University purposes exclusively, at a cost of £40,000, the Hall now erected, with the wider object indicated, will cost, when fully equipped, more than £100,000, exclusive of the cost of the site, and will provide accommodation for nearly 3000 people.—I am, &c. (Signed) WM. M'EWAN.

The following motion was put from the Chair, and unanimously adopted:—"The University Court have heard with much satisfaction that the Trustees expect the M'Ewan Hall to be completed early in 1897. They regard the presentation of the Hall as forming an epoch in the life of the University, which will for the first time in its history be provided with adequate accommodation for the conferring of degrees and for other University functions and ceremonials. The Court wish to put on record their profound sense of the magnificence of the gift which Mr M'Ewan is making to the University, of the prescience he has shown in the nature of the gift, and of his unsparing liberality in providing funds for an academic hall to complete the design of the new buildings. In both the dignity of its architecture and the beauty and completeness of its internal arrangements, the Hall is an edifice of which both the University and the City may well be proud. The Court have given full consideration to the suggestions embodied in Mr M'Ewan's letter. They sympathise with his desire that the use of the Hall should, on appropriate occasions, be granted to the Corporation for such civic functions as he refers to, and, animated as they are by the most complete friendliness to the City, they will be both ready and willing to administer the Hall in the liberal spirit which characterises Mr M'Ewan's letter."

Thereafter it was resolved that the Court take this opportunity of expressing their appreciation of the public spirit and liberality with which the Corporation have acted in carrying out the Improvement of that part of the Town which is in proximity to the M'Ewan Hall, in such a way as materially to benefit and embellish the University.

MONDAY, 16TH NOVEMBER 1896.—The Right Hon. Lord Balfour of Burleigh, who took his seat as a member of the Court, presided as *ex officio* President of the meetings of the Court.

The Minutes of the ordinary meeting of 19th ult. and of the special meeting of 4th inst. were submitted and approved.

The resignation of the Right Hon. the Lord Justice-General as a re-

presentative of the University Court on the Joint Administrative Board of Agriculture was reported.

Intimation was made of a legacy of £1000 by the late Dr W. F. Rawdon, York, to the Building Fund of the University of Edinburgh, in which University he graduated as a Doctor of Medicine in the year 1827.

Intimation was made of the resignation of the following University Assistants:—Mr Matthew Marshall (Chemistry), Dr J. P. Stewart (Physiology), and Dr J. B. Yeoman (Anatomy). On the recommendations of the Professors of the respective Departments, the Court appointed Mr J. P. Longstaff to be fourth Assistant in Chemistry, Mr A. C. Sturrock, M.A., M.B., to be third Assistant in Physiology, and Mr David Waterston, M.B., to be fourth Assistant in Anatomy.

Mr D. A. Stevenson, B.Sc., was re-appointed Additional Examiner in Engineering; and Miss E. A. Ormerod, F.E.S., Additional Examiner in Agricultural Entomology.

The Court had under consideration a letter from the President of the General Council of Medical Education regarding the disciplinary powers of the Universities over their Graduates, and copy of a report on the Disciplinary or Penal powers of the Qualifying Medical Authorities as approved by the General Medical Council.

An amendment suggested by the Draft Ordinances Committee on Draft Ordinance (Glasgow, Aberdeen, and Edinburgh, No. 3—Regulations for degrees in Medicine, supplementary to Ordinances Nos. 14, 15, and 16) was approved.

It was agreed to recognise the degree of B.A. of the University of Princeton, New Jersey, U.S.A., as exempting from the Medical Preliminary Examination.

The Class Returns for 1895-96 were remitted to a Committee for consideration and report.

It was intimated that copies of reports by Committees of the General Council of the University, as approved by the Council, had been received.

There was laid before the Court a letter from Miss E. A. Ormerod, F.E.S., Additional Examiner in Agricultural Entomology, offering for the acceptance of the University a number of Entomological diagrams prepared by her sister recently deceased, in addition to the valuable entomological collection presented to the University by these ladies in April last. The Court gladly accepted this further gift, and desired to express their thanks to the donor.

Various reports submitted by the Business and Law, Finance, and Works Committees were approved.

Monday, 14th December 1896.—The Minutes of last meeting were submitted and approved.

It was reported that the Hon. Lord Stormonth Darling had been appointed Rector's Assessor.

A letter from Professor Sir Douglas Maclagan was read requesting to be allowed to retire from his Chair on a pension, as from 1st September last. In granting the application, the University Court desired to express to Sir Douglas Maclagan their deep regret at the loss of his services, and their high estimation of the distinguished manner in which he has conducted the duties of his important Chair for thirty-four years. They would especially refer to the great development which he has given to the teaching of Public Health in the University, and to the organisation of a laboratory in connection with its teaching. The Court would venture to hope that he may be spared for many years to enjoy the repose to which he is entitled at the end of a long and well spent life of activity and usefulness.

Mr Hope Finlay was appointed a representative of the University Court on the Joint Administrative Board of Agriculture, in room of the Lord Justice-General, resigned.

The following Additional Examiners were appointed for a period of four years from 1st proximo:—1, Mr W. L. Carrie, M.A., Edinburgh (Education); 2, Professor Thomas H. Middleton, B.Sc., University College, Aberystwyth (Agriculture); 3, Mr Finlay Dun, Edinburgh (Veterinary Hygiene); 4, Mr R. Greig Smith, B.Sc., Durham College of Science, Newcastle-on-Tyne (Agricultural Chemistry); 5, Dr W. H. Perkin, Manchester (Chemistry); 6, Dr G. Sims Woodhead, London (Pathology); 7, Dr J. Crawford Renton, Glasgow (Surgery.) The following Additional Examiners were appointed for a period of three years from 1st proximo:—Professor Johnson Symington, Queen's College, Belfast (Anatomy), and Dr C. D. F. Phillips, London (Materia Medica). Dr J. O. Affleck, Edinburgh, was appointed Additional Examiner in Medicine for Public Health for one year, and in Clinical Medicine for a period not exceeding four years from 1st proximo. It was agreed to advertise the Additional Examinerships in Botany, Physiology, Medicine, and Midwifery, vacant as from 1st proximo.

The Senatus reported the re-election of Professor Calderwood as one of their Assessors in the University Court.

Reports by the Senatus under Ordinance No. 11, sections xiii. and xxii., were submitted.

On the recommendation of the Senatus, an alteration on the Regulations for the Patterson Bursary in Arts was approved.

The Court granted applications by the following for recognition as teachers whose courses of instruction qualify for graduation in Medicine:—1, R. J. A. Berry, M.D., Edinburgh (Anatomy); 2, David Wallace, M.B., Edinburgh (Surgery); and 3, John Edgar, M.D., B.Sc., Glasgow (Midwifery). The Arts Degree of Queen's College, Kingston, Canada, was recognised under Ordinance 39, sect. i., as admitting to examination for the degree of LL.B.; and Madras Law School under Ordinance 39, sect. iii. (1), in connection with the course of study necessary for said Degree. The Degree of B.A. of the University of

Calcutta and of the University of Madras was recognised for the purposes of Graduation in Law.

The Principal intimated that the Ritchie Bequest, the destination of which had been left to his sole decision, would be employed to institute two bursaries to be held by students of this University studying for the Indian Civil Service.

The Report as to Statistics for 1895-96 to the Secretary for Scotland, under section 30 of the Universities (Scotland) Act, 1889, was submitted and approved.

The Report by the Finance Committee on the University Accounts for 1895-96, with estimates for 1896-97, was submitted and approved. Various other reports by the Finance Committee and by the Business and Law Committee were considered and approved.

MONDAY, 18TH JANUARY 1897.—The Minutes of last Meeting were submitted and approved.

It was reported that the vacancy in the Chair of Forensic Medicine had been intimated to the Secretary for Scotland, and that the Report on Statistics for 1895-96, under section 30 of the Universities (Scotland) Act, 1889, had been forwarded to the Secretary for Scotland.

The following Additional Examiners were appointed for a period of four years:—1, Mr Walter Armstrong, Director of the National Gallery, Dublin (Archæology and Art); 2, Dr R. Bruce Low, Local Government Board, London (Medical Jurisprudence and Public Health); 3, Mr Robert Turnbull, B.Sc., Edinburgh (Botany); 4, Dr De Burgh Birch, Yorkshire College, Leeds (Physiology); 5, Dr G. A. Gibson, Edinburgh (Medicine); and 6, Dr James Haig Ferguson, Edinburgh (Midwifery).

The Report on the State of the Finances for 1895-96 to the Secretary for Scotland, under section 30 of the Universities (Scotland) Act, 1889, was submitted and approved.

Various Reports of the Finance Committee were submitted and approved.

MONDAY, 15TH FEBRUARY 1897.—The Minutes of last Meeting were submitted and approved.

It was intimated that the Report on the state of the Finances for 1895-96 under sect. 30 of the Universities (Scotland) Act, 1889, had been forwarded to the Secretary for Scotland.

It was reported that the following Ordinances had been laid before Parliament:—No. 155 (General No. 38.—Regulations for Degrees in Science, supplementary to Ordinances 11, 22, and 134), and No. 156 (Glasgow, Aberdeen, and Edinburgh, No. 3.—Regulations for Degrees in Medicine, supplementary to Ordinances Nos. 14, 15, and 16).

Draft Ordinance (General No. 39.—Regulations for Degrees in Arts, supplementary to Ordinances Nos. 11, 44, and 148), instituting a new

honours group in Arts, in Economic and Political Science, was remitted to the Draft Ordinances Committee.

Dr Heron Watson was reappointed a Curator of Patronage for three years as from 13th April next.

The Hon. Lord Stormonth Darling and Professor Butcher were re-appointed representatives of the University Court on the University Field Committee for one year as from 16th proximo.

It was reported that in addition to the sum of £5000, less legacy duty, bequeathed to the University in 1893, by the late Mr A. L. Bruce, Edinburgh, towards the founding of a Chair of Public Health, a further donation of £1,093 for the same object had been intimated from Mrs Bruce and other members of the family. It was also reported that an offer of £5,000 towards the same object had been received since last Meeting of the Court from a gentleman, whose name, at his own request, is not to be made known for the present. The Court, considering that the amount of these donations approximates the sum which they think to be necessary for the Endowment of the proposed Chair, resolved to request the Universities Commission to frame a Draft Ordinance instituting a separate Chair of Public Health in the University.

Intimation was made of the receipt of (1) Government Grant of £100 towards instruction in Forestry for the year ending 31st March next; (2) grant of £80 from the Joint Administrative Board of Agriculture towards the Lectureship in Agricultural Chemistry; and (3) £75 from the Highland and Agricultural Society, being further contributions collected in aid of the Fund for the Endowment of a Chair of Forestry in the University.

On the recommendation of a committee of the Court in conference with representatives of the Senatus, it was agreed to substitute the following Regulation for B 1 of the Court's Requirements for the Degrees of M.B. and Ch.B. of date 13th April 1896:—"B 1.—A course of clinical instruction in the diseases of children, given by the University Lecturers and by recognised teachers in the Edinburgh Royal Hospital for Sick Children, or by a recognised teacher or teachers in a hospital recognised for the purpose, which shall extend over a period of at least six weeks, and in addition to the opportunities for surgical and for other medical instruction afforded by the hospital, shall include clinical instruction in the medical diseases of children, consisting of not less than four class-room lectures, ten meetings for clinical instruction in the medical wards, and four meetings in the out-patient department of the hospital, together with attendance at post-mortem examinations."

The Senatus reported their reasons for granting to a student in the Faculty of Science the privilege conferred by Ordinance 12, Sect. X.

The Court approved of the arrangements which had been made by the Senatus for conducting the course of lectures in Public Health in consequence of the resignation of Professor Sir Douglas Maclagan.

The Court approved of the Draft Regulations for the Ritchie Scholar-

ships in Oriental Languages (two in number of £40 each, tenable for from one to three years), to be held by candidates for the Civil Service of India.

A report by the Library Committee, made under the Universities (Scotland) Act, 1889, Sect. 7 (2), and Ordinance 64, Sect. XV., and the Librarian's report for 1895-96, made under said Ordinance, Sect. XVI., were submitted.

Various reports by the Finance, Business and Law, and Works Committees were submitted and approved.

Monday, 15th March 1897.—The Minutes of last Meeting were submitted and approved.

On the recommendation of the Professor, it was agreed to appoint Mr William B. Stevenson, B.D., as University Assistant in Hebrew and Semitic Languages for the period from 1st May to the end of the current academical year, in room of Mr D. M. Kay, B.D., B.Sc., resigned.

Additional Examiners were appointed as follows:—1, Mr John Rowfogo, Edinburgh (Political Economy); 2, Mr David M. Westland, C.E., Edinburgh (Engineering); 3, Mr John Robertson, M.D., B.Sc., St Helens, Lancashire (Public Health Laboratory Work); 4, Mr A. O. Prickard, Fellow of New College, Oxford (Classics for the Degree of D. Litt.); 5 and 6, Professor Douglas, British Museum, London, and Professor Orr, United Presbyterian College, Edinburgh (Philosophy for the Degree of D. Phil.); 7, Professor Forsyth, Cambridge (Mathematics for the Degree of D.Sc.); 8, Dr John Gibson, Professor of Chemistry in the Heriot-Watt College (Chemistry for the Degree of D.Sc.).

It was reported that, in addition to the offer of £5,000 towards the foundation of a Chair of Public Health, which was announced at last meeting of the Court, a further offer of £3,000 towards the same object was intimated from the same generous donor. It was also reported that, in addition to the donations by members of the family of the late Mr A. L. Bruce, the offer of an additional sum of £100 had been received from Mr and Mrs Edward Bruce.

It was reported that the Houldsworth Scholarship of the annual value of about £40, tenable for from one to three years, had been transferred to the University of Edinburgh, for Research in Pharmacology.

A recommendation by the Senatus that a tutorial class in Formal Logic, to be conducted by the University Assistant in Logic and Metaphysics, during next summer session, was approved. The fee was fixed at £1, 1s.

Various reports of the Finance Committee were submitted and approved.

Monday, 12th April 1897.—The Minutes of last Meeting were submitted and approved.

Mr J. Purves Stewart, M.A., M.B., C.M., was appointed University

Assistant in Medicine for the remainder of the current academical year as from 1st instant.

Intimation was made of a donation of £1000 by Messrs William Younger and Co. (Limited), Edinburgh, towards the endowment of the proposed separate Chair of Public Health.

It was reported that Sir Henry D. Littlejohn had been duly inducted as Professor of Forensic Medicine. The following were appointed Additional Examiners to examine and report on Theses for Higher Degrees in Arts and Science:—Mr H. F. Baker, M.A., University of Cambridge (in room of Professor Forsyth); Mr A. E. Shipley, M.A., Christ's College, Cambridge; and Dr J. L. M'Intyre, University College, Aberystwyth.

Dr W. G. Aitchison Robertson, Edinburgh, was recognised for one year as a teacher of Medical Jurisprudence and Public Health, whose courses of instruction shall qualify for graduation in Medicine and Science.

The Draft Ordinances Committee gave in their report, recommending amendments on Draft Ordinances (Edinburgh, No. 28.—Foundation of Chair of Public Health) and (General, No. 40.—Regulations for Higher Degrees in Arts and Science, supplementary to Ordinance No. 62), but recommending no amendment on Draft Ordinances (General No. 39.—Regulations for Degrees in Arts, supplementary to Ordinances Nos. 11, 44, and 148; and (General No. 41.—Regulations for Degrees in Arts, supplementary to Ordinances Nos. 11, 44, and 148). The recommendations of the Committee were adopted.

Various reports of the Finance Committee were submitted and approved.

Miscellaneous.

I. Civil Service of India Examinations. — Persons desirous to be admitted as Candidates may obtain Regulations and Lists of Subjects, &c., from "The Secretary, Civil Service Commission, London, S.W.," who will supply forms of application.

II. Examinations for Candidates for the Army.—1. Candidates may be exempted from the Preliminary Examination in all subjects except geometrical drawing, if they can produce a Certificate of having passed the Preliminary Examination in general education required of Candidates for Graduation in Medicine at the University of Edinburgh, when the Candidate has passed in all the subjects of the Army Preliminary Examination at not more than two Examinations.

2. All who have passed the Examinations for the degree of M.A. are eligible for Commissions in the Army, and will be allowed two years' extension of the ordinary limit of age.

3. Those Students who have not passed the Examinations for the degree of M.A. may receive Certificates qualifying them for Commissions in the Army (provided they be not more than 21 years of age) on having attended one class in each of the following three Departments—viz., (*a*) either one Greek or one Latin class; (*b*) either Logic, Moral Philosophy, or Rhetoric and English Literature; (*c*) either Mathematics or Natural Philosophy,—and on passing the Examinations in the M.A. standard, in either Spring or Autumn, in the three subjects in which the Candidate has attended classes.[1] This Examination is called "The Examination for Candidates for the Army."

Candidates for the Certificate are not required to pass the Preliminary Examination, but unless the Candidate has passed the Preliminary Examination, the Certificate will not qualify for Graduation in Arts.

The names of intending Candidates for Certificates must be given in and Fees paid at the *Matriculation Office* at the same time as those of Candidates for the M.A. Examinations.

The Fee for the Examination is two guineas.

III. Subjects of Examination for Students of Divinity and Candidates for License by Presbytery of Edinburgh.

Examination mainly in writing. An average of not less than 50 per cent. over all the subjects is necessary. Examinations held in the Examination Hall of the University.

[1] See subjects of Examination for ordinary Degree of M.A.

1. *For Students entering the Divinity Hall.*—(1) Biblical Knowledge.—Genesis to 2 Samuel, and the Four Gospels; (2) The Shorter Catechism.

2. *For Students entering on their Second Year.*—(1) Latin.—Augustine—Enchiridion; (2) Greek.—The Epistle to the Colossians as in Lightfoot; (3) Hebrew.—Davidson's Grammar, 1-31; Genesis, i.-ix; (4) Divinity.—Confession of Faith, 1-15; Flint's Theism; Row's Manual of Christian Evidences; (5) Biblical Knowledge.—1 Kings to Nehemiah, and Acts of the Apostles; (6) Church History.—History of the Church to 325 A.D.

3. *For Students entering on their Third Year.*—(1) Latin.—Anselm—Car Deus Homo; (2) Greek.—St John's Gospel to be read critically, with discussions as to date and authorship; (3) Hebrew.—Davidson's Grammar, 32-49; Psalms i.-xv.; (4) Divinity.—Confession of Faith, 16-33; The Trinity; The Person of Christ; (5) Biblical Knowledge.—The Psalms and Isaiah; (6) Church History.—The Reformation Period, with special reference to Scotland.

4. *For Candidates for License.*—Scriptures of the Old and New Testaments, and History and Doctrine of the recognised Standards of the Church of Scotland.

J. LANGWILL, D.D., *Cl. Presb. Edin.*

IV. THE EDINBURGH UNIVERSITY UNION.—*President*—G. L. Chiene. *Hon. Secretary*—J. R. Hunter (H. O. Hobson, resigned). *Treasurer*—W. A. Wood, C.A., 45 Queen Street. *Committee of Management.—Senatus*—Professors Butcher and Annandale. *General Council*—Dr Caird, Dr Cattanach, Dr R. J. A. Berry, R. D. Melville, M.A., LL.B. *From StudentMembers*—D. B. King, M.A.; G. L. Findlay, C. J. Caddick, C. P. B. Wall, C. H. Elmes.

The Union is open to all Students and Graduates of the University, and its purpose is "the provision and maintenance of means of social and academic intercourse for its members." The Building, which includes a large hall (in which the debates are held), luncheon, smoking, reading-rooms, and billiard-room, is situated in Park Street, near both the old and the new buildings. The reading-room is amply supplied with newspapers, and with the weekly, monthly, and quarterly periodicals; the billiard-room is furnished with two billiard tables, and the library contains University, Class, Text, and Reference Books.

Terms of Membership.—By payment of an entry-money of 5s. and an Annual Subscription of 10s. 6d. if a Matriculated Student, or £1, 1s. if a Graduate, University Assistant, or Lecturer.

Affiliated Societies.—The Edinburgh University Union Dramatic Society; University of Edinburgh Union Literary Society; E. U. Union English Public Schools Club.

The following University Societies and Associations, though not affiliated with the Union, have been granted certain privileges for the transaction of Business in the Union:—Students' Representative

Council, Athletic Club, Conservative Association, Liberal Association, Chemical Society, Musical Society, and Darwinian Society.

Full particulars as to affiliation, &c., on application at the Union.

V. Statistics of the Rectorial Elections, 1859-1896.

1859.—*Gladstone*, 642.—*Neaves*, 527. Matriculated students, 1302.
1862.—*Gladstone* (*unopposed*). Matriculated students, 1331.
1865.—*Carlyle*, 657.—*Disraeli*, 310. Matriculated students, 1288.
1868.—*Moncreiff*, 607.—*Ruskin*, 425. Matriculated students, 1398.
1871.—*Maxwell*, 594.—*R. Palmer*, 502. Matriculated students, 1533.
1874.—*Derby*, 770.—*Playfair*, 583. Matriculated students, 1767.
1877.—*Hartington*, 932.—*Cross*, 684. Matriculated students, 2102.
1880.—*Rosebery*, 1024.—*Christison*, 985. Matriculated students, 2496.
1883.—*Northcote*—*Blackie*—*Trevelyan*. Matriculated students, 2660.
1886.—*Iddesleigh*, 1094.—*Playfair*, 747. Matriculated students, 2680.
1887.—*Lothian* (*unopposed*). Matriculated students, 2493.
1890.—*Goschen*, 1378.—*Russell*, 805. Matriculated students, 3038.
1893.—*Robertson*, 1145.—*Reay*, 728. Matriculated students, 2649.
1896.—*Balfour*, 990.—*Haldane*, 771. Matriculated students, 2414.

VI. Royal Medical Society, Edinburgh, 7 Melbourne Place. Founded 1737. Royal Charter granted 1778. *Presidents*—E. Scott Carmichael, M.B., C.M.; J. Brunton Blaikie, M.B., C.M.; Edwin Bramwell, M.B., C.M.; Harry Fowler. *Secretaries*—George Chiene, J. W. Struthers. *Treasurer*—J. R. Young, Esq. *Sub-Librarian*—A. P. Ormiston.

The Society meets in its hall every Friday evening during the Winter at 9 o'clock. At these meetings dissertations on medical subjects are read and debated, and communications by members on subjects of interest discussed. The Society possesses a very fine library, containing about 30,000 volumes, which is constantly being added to, the catalogue of which was brought up to date in 1896. There are comfortable writing and reading-rooms with all the medical journals and periodicals, books of reference and text-books specially useful to students reading for examinations. The museum contains a complete collection of Materia Medica specimens, microscopic sections, pathological preparations, herbarium, and a surgical model, on which bandaging, setting of fractures, &c., may be practised.

VII. International-Academic Committees. A Committee appointed by the Senatus, consisting of Professors Kirkpatrick (*Convener*), The Principal, Professors Chrystal, Eggeling, Sir L. J. Grant, Bart. (Secretary of Senatus), Herr Schlapp, Monsieur Sarolea, and the International-Academic Committee of the Students' Representative Council will be happy to give every assistance in their power to Foreigners desirous of studying in the University of Edinburgh, and to Edinburgh University Students desirous of studying in foreign universities. Inquiries may be addressed to either of these Committees.

VIII. Association for the Better Endowment of the University of Edinburgh. *President*—The Right Hon. Arthur James Balfour, D.C.L., LL.D., M.P., Chancellor of the University. *Vice-Presidents*—The Right Hon. The Earl of Wemyss, LL.D.; The Right Hon. The Earl of Stair, K.T.; The Right Hon. The Earl of Rosebery, K.G., K.T., LL.D.; Principal Sir William Muir, K.C.S.I., D.C.L., LL.D.

Ordinary Members of the General Committee—The Right Hon. John B. Balfour, Q.C., LL.D., M.P.; R. Fitzroy Bell, Esq., Advocate; A. W. Black, Esq.; John Boyd, Esq.; Sir Thomas J. Boyd; Professor Crum Brown, M.D.; Professor Butcher, LL.D.; Rev. Professor Calderwood, LL.D.; John Carment, Esq., LL.D., S.S.C.; Professor Chiene, F.R.C.S.E.; D. Christison, Esq., M.D.; The Hon. Lord Rutherfurd Clark, LL.D.; Sir Thomas Clark, Bart.; Archibald Constable, Esq.; Henry Cook, Esq., W.S.; Charles Cook, Esq., W.S.; R. Cameron Cowan, Esq., C.A.; Donald Crawford, Esq., Advocate; The Hon. Lord Stormonth-Darling, LL.D.; John Duncan, Esq., M.D.; J. R. Findlay, Esq.; The Rev. Archibald Fleming; John Harrison, Esq.; James Hope, Esq., W.S.; A. Taylor Innes, Esq., Advocate; The Hon. Lord Kinnear, LL.D.; Æ. J. G. Mackay, Esq., LL.D., Advocate, Sheriff of Fife; The Hon. Bouverie F. Primrose, C.B.; Charles Robertson, Esq., B.C.S.; Professor Seth, LL.D.; Robert Simson, Esq., B.C.S.; George Smith, Esq., LL.D., C.I.E.; James Walker, Esq. of Dalry. *Hon. Secretary*—Sir Alexander Christison, Bart., M.D. *Secretary*—Robert G. Scott, W.S., 61 North Castle Street.

Local Honorary Secretaries—A. Mercer Adam, Esq., M.D., Boston, Lincolnshire; Sir Dyce Duckworth, M.D., 11 Grafton Street, Piccadilly, London; Peter Gardner, Esq., W.S., 153 St Vincent Street, Glasgow; A. F. Hutchison, Esq., Stirling; James Tait, Esq., W.S., Kelso.

Terms of Membership—Life Subscription, Ten Guineas; Annual Subscription, One Guinea. Subscriptions and Donations in excess of these Sums are earnestly solicited by the Committee.

IX. University of Edinburgh Buildings Extension Scheme. At a Meeting of the Acting Committee for this Scheme, held on 16th November 1885, it was resolved to apply to Parliament for power to acquire houses in Park Street adjoining the present New Buildings as a site upon which to erect a University Hall; and under the Edinburgh University Buildings Extension Act, 1886, certain Members of the Committee were incorporated as Trustees by the name of the Edinburgh University Buildings Extension Trustees, for the purpose of acquiring the property in question and erecting the Hall.

The present Trustees are:—

Principal Sir W. Muir, K.C.S.I., D.C.L.
William M'Ewan, Esq., M.P.
Professor Sir William Turner, D.C.L.

Mr M'Ewan munificently offered to contribute the sum required to erect the Hall as originally contemplated, and in completion of the architect's design, upon condition of the cost of the site being provided otherwise. The Government was approached on the subject, and a Parliamentary grant of £8000 towards the cost of the site was obtained. Mr M'Ewan having provided the balance required, the site was purchased. Plans for the erection of the Hall by R. Rowand Anderson, LL.D., Architect, were approved of and contracts entered into, and the Hall, which is now completed, will be formally opened in the late Autumn of this year. By resolution of the Senatus Academicus, the new Hall will be named the "M'Ewan Hall," in grateful recognition of the founder's benefaction.

GEORGE SOMERVILLE, City Chambers,
Clerk to Trustees.

X. UNIVERSITY SOCIETIES AND CLUBS.

i.—THE AGRICULTURAL SOCIETY. ESTABLISHED 1858. *Honorary President*—R. Stewart MacDougall, Esq. *President*—J. G. Smith. *Vice-President*—W. Bruce. *Secretary*—S. F. Ashby. *Treasurer*—G. Profeit. *Committee*—Messrs J. O. Peet, J. C. Rushton, E. Scott.

This Society meets weekly on Mondays during the Winter Session at 8 P.M.

ii.—ARTS STUDENTS' CHRISTIAN ASSOCIATION. *Hon. President*—Professor Hardie *Hon. Vice-Presidents*—Dr Barbour; Rev. Hugh Black; Professor Butcher; Professor Calderwood; Professor Marcus Dods; Rev. G. Jackson; Professor Kennedy; Sir William Muir; Professor Prothero; Professor Seth; Rev. Dr Whyte; Rev. G. Wilson. *President*—Mr David Heggie. *Joint Secretaries*—Messrs D. G. M. Leith, and J. S. West, The Office, Blackie House. *Treasurer*—Mr W. G. Alexander, 42 Albany Street, Leith. *Ward Secretary*—Mr J. Macrae, 4 Keir Street. *Bible Circle Secretary*—Mr D. Miller Craig.

The objects of the Association are—1) To form a bond of union between men whose principle and aim in life is Christian; (2) To promote social intercourse; (3) To give University men an opportunity of engaging in Christian work; (4) To foster study of the Bible.

(WOMEN'S BRANCH.)

Honorary President—Miss Louisa Stevenson. *President*—Miss Lorimer. *Vice-Presidents*—Miss A. M. Smith, Miss Williamson. *General Secretary*—Miss Ridpath, 26 Thirlestane Road. *Treasurer*—Miss Sutherland, M.A., 30 Warriston Crescent. *Departmental Secretaries.—For Social Work*—Miss Linton. *For New Students*—Miss Mackay. *For Bible Study Meetings*—Miss Hogg. *For Foreign Missions*—Miss Stevenson. *For Work in Mission Districts*—Miss Ross.

N. B.—All communications to be addressed to the General Secretary.

The work is carried on by means of weekly meetings for Bible study and other religious and social meetings. Membership is open to all Matriculated women students, present and past, of the University of Edinburgh, the annual subscription being one shilling.

iii.—Associated Societies of the University. This Association was instituted in 1833, and is a Union of Literary and Debating Societies. It is composed at the present date of five societies :—The Dialectic, Scots Law, Diagnostic, Philomathic, and Celtic Societies. The following is the list of the Office-Bearers of the Association, and of the respective component societies :—

Honorary President-Elect—The Right Honourable the Earl of Rosebery. *Hon. Vice-Presidents*—The Senatus Academicus of the University (*ex officiis*). *Secretary*—J. M. Thomson, LL.B., W.S., 8 Brandon Terrace.

(1.) Dialectic Society. Instituted in 1787.—(*Office-bearers not communicated.*)

This Society meets in the Societies' Hall every Thursday Evening at 8 o'clock, for the prosecution of Literary and Philosophical Composition, Criticism, and Debate.

(2.) Scots Law Society. Instituted in 1815. *Presidents*—Douglas M. Gibson, James D. Millar, M.A., LL.B., Advocate, and Robert Berry. *Secretary*—Charles R. Beveridge, 57 Marchmont Road. *Assistant-Secretary*—W. J. Thom, 34 Sciennes Road. *Treasurer and Librarian*—J. Aitken Welsh, M.A., LL.B., Advocate, 22 Castle Street.

This Society meets every Monday evening during the Winter Session, at 8.30 o'clock, in the Associated Societies' Hall, University, for the purpose of debating Legal Questions and reading Essays.

(3.) The Diagnostic Society. Instituted in 1816. *Presidents*—G. F. Henderson, E. E. Malcolm, G. G. M. Harvey, George Sang. *Secretary*—G. E. R. Coldstream. *Treasurer*—P. F. Gibson.

This Society meets every Tuesday evening during the Winter Session, at 9 o'clock, in the Associated Societies' Hall, for the purpose of debating and reading Essays.

(4.) Philomathic Society. Instituted in 1858. *Presidents*—T. Maclagan, J. S. Macdonald, C. Irons. *Secretary*—A. J. Donald. *Assistant-Secretary*—W. C. A. Ross. *Treasurer*—R. L. Hendry.

This Society meets in the Societies' Hall every Friday evening during the Winter Session, at 8 P.M., for the purposes of debate and essay-reading; and is open to all who are, or have been, Matriculated Students of the University of Edinburgh.

(5.) Celtic Society. Instituted 1848. *Honorary President*—Professor Mackinnon. *Presidents*—D. T. Mackintosh, J. Cameron,

W. R. R. Macdonald. *Secretary*—J. M. Lamont. *Assistant-Secretary*—J. J. Macpherson. *Treasurer*—Charles Urquhart. *Committee*—The Office-bearers, and Messrs Rose, Murray, and Cormack. *Representative to S.R.C.*—Wm. Hamilton.

The Society meets every Saturday evening during the Winter Session, at 7 o'clock P.M., in the Associated Societies' Hall. All Celtic Students cordially invited. Next Session begins on Friday, 22nd October.

iv.—ATHLETIC CLUB. *President*—C. J. Cadman Young. *Vice-President*—F. W. Menzies. *Joint Hon. Secretaries*—Ian L. MacInnes, and Percy E. Nobbs. *Treasurer*—C. E. W. Macpherson, C.A.

Open to all Members and Graduates of the University, and to Members of the Extra-Mural School. *Sections*—1. FOOTBALL (Rugby) — *Secretary* — C. L. Dunn. 2. (Association) — *Secretary* — F. W. Menzies. 3. CRICKET — *Secretary* — E. A. Lock. 4. HARE AND HOUNDS—*Secretary*—J. R. Anderson. 5. CYCLING—*Secretary*—J. Twigge-Molecey. 6. LAWN TENNIS—*Secretary*—J. L. Findlay. 7. BOATING—*Secretary*—G. C. Thomas. 8. BOXING—*Secretary*—W. I. Nicholson. 9. GOLF—*Secretary*—W. T. Holland.

Field at Craiglockhart. Address all communications to *Sec.*, University Union.

v.—CAITHNESS STUDENTS' ASSOCIATION. INSTITUTED IN 1856. *Honorary President*—His Grace the Duke of Portland. *President*—D. B. Waters, M.A. *Secretary*—A. W. Lowe. *Treasurer*—George Wares.

This Association meets fortnightly, in the Education Class Room, on Saturdays, at 8 P.M., during the Winter Session, for the purpose of debating, for reading Essays, and for the advancement of education in Caithness.

vi.—CHEMICAL SOCIETY. INSTITUTED 1874. *President*—Professor A. Crum Brown, M.D., D.Sc. *Vice-Presidents*—Leonard Dobbin, Ph.D.; J. E. Mackenzie, Ph.D., B.Sc. *Librarian*—J. P. Longstaff. *Secretary*—Charles E. Fawcitt. *Treasurer*—James Scott.

This Society holds fortnightly meetings, at 8 P.M., in the University Union, during the Winter Session, for the reading and discussion of papers on Chemistry and allied Sciences.

Excursions to Chemical Works, &c., during the Sessions.

vii. CLASSICAL SOCIETY.—This Society meets to read and discuss Essays on Classical subjects every Saturday morning, during the Winter Session, from Ten to Half-past Twelve. *Presidents* — W. J. D. Hardinge, Kenneth W. Knox, R. A. Wilson. *Secretary* — C. F. Grant. *Treasurer*—W. E. Wait.

viii.—DUMFRIESSHIRE AND GALLOWAY LITERARY SOCIETY. INSTITUTED 1847. *Presidents*—D. Robertson, 31 Marchmont Crescent; Robert Affleck, 22 Panmure Place; James Armstrong, 9 Living-

stone Place; Joseph Hunter, 24 Lomond Road, Trinity. *Secretaries*—D. Paterson, 54 Marchmont Road; J. G. R. Carruthers, 4A Melville Street. *Treasurer*—J. G. Mackenna, 20 Cumberland Street.

The Society meets every Saturday evening during the Winter Session, at 7 o'clock, in the Public Law Class-Room.

IX.—FREE CHURCH STUDENTS' SOCIETY. INSTITUTED 1886. Office-Bearers for Session 1897-98:—*Senior President*—Mr D. H. MacGregor. *Junior President*—Mr J. A. Davidson. *Secretaries*—Mr D. Duncan Paton, Mr Wm. Husband. *Treasurer*—Mr A. D. Crichton.

The Society is open to all past and present Free Church Students of the University of Edinburgh, and meets in the Elocution Class Room, New College, Mound, every Saturday evening during the Winter Session, at 7 o'clock.

X.—MEDICAL STUDENTS' CHRISTIAN ASSOCIATION. *Honorary President*—Dr A. H. F. Barbour. *Honorary Vice-Presidents*—Professors Crum Brown, M.D.; Sir Thomas Grainger Stewart, M.D.; Greenfield, M.D.; Sir D. Maclagan, M.D.; A. R. Simpson, M.D.; Dr J. Affleck; Dr J. W. Ballantyne; Dr Robert Fleming; Mr A. G. Miller, F.R.C.S.E.; Mr C. W. Cathcart, F.R.C.S.; Mr J. Shaw M'Laren, F.R.C.S.E. *President*—Harold Nuttall, 17 Keir Street. *General Secretary*—F. W. Broadbent, Blackie House, 8 North Bank Street. *Ward Service Secretaries*—J. C. Carr, 15 Spottiswoode Street; T. C. Mackenzie, 36 Woodburn Terrace. *Bible Circle Secretary*—E. A. Boxer, 1 Marchhall Crescent. *Treasurer*—F. O. Lasbrey, 8 Esplanade Terrace, Joppa.

The object of the Association is, stated briefly, to form a bond of union between Medical Students whose *principles and aims in life* are Christian. Membership is open to both University and College of Surgeons Students. A half-hour meeting, to which *all* Medical Students are invited, is held each Sunday during Session from 10 to 10.30 A.M. in the Chapel of Royal Infirmary, and is conducted by various medical men and Senior Students. There is a Missionary Library open to all matriculated Students. The Secretaries will be glad to give full information as to the work of the Society, and to enrol any who wish to become members.

XI.—MISSIONARY ASSOCIATION. INSTITUTED 1825.—*Honorary President*—Principal Sir W. Muir, K.C.S.I., D.C.L. *Hon. Vice-Presidents*—Lord Balfour of Burleigh (Lord Rector), Professors Calderwood, Charteris, and Kennedy. *Honorary Treasurer*—W. Melville Sym, Esq., C.A. *President*—W. Pitcairn Craig. *Vice-President*—A. W. Mitchell, M.A. *Secretary*—G. Douglas Shepherd, M.A. *Assistant Secretary*—Jas. Mathers, B.A. *Treasurer*—A. R. Yeoman, M.A. *Librarian*—S. Sanderson, M.A.

The Association meets to transact business in the Public Law Class-Room on alternate Saturdays, at 10 A.M.

xii.—Edinburgh University Musical Society. Founded 1866-67.—*Patron*—H.R.H. The Reigning Duke of Saxe-Coburg and Gotha (The Duke of Edinburgh). *President*—Professor Niecks. *Vice-Presidents*—Principal Sir Wm. Muir, K.C.S.I.; Professors Annandale, Armstrong, Crum Brown, Butcher, Calderwood, Flint, Kirkpatrick, Rutherford, and Seth; Emeritus-Professors Sir Douglas Maclagan, Sir Herbert S. Oakeley; and D. Hepburn, M.D. *Hon. or Corresponding Vice-Presidents*—The President of Aberdeen University Musical Society; Professor Sir John Stainer, Oxford; Professor Villiers Stanford, Cambridge; and Professor Prout, Dublin. *Hon. Secretary*—C. A. B. Horsford. *Hon. Treasurer*—W. Cameron Sillar, M.B., B.Sc. *Conductor*—Carl D. Hamilton. The Chorus (male and female) meets for practice weekly in the Music Class Room, Park Place, on Tuesdays, at 5.10 P.M.

xiii.—Physical Society.—*Presidents*—L. O. Critchley, M.A.; Jas. A. Macdonald, M.A. *Secretary and Treasurer*—D. Macrae Aitken. *Secretary-Elect*—J. Lornie, Physical Laboratory. The Society meets every third Wednesday during the Session, at 7.30 P.M., for the discussion of subjects connected with Mathematical and Experimental Physics.

xiv. — Photographic Society. — (*Office-Bearers not communicated.*) All past and present Students eligible. Dark-rooms, Studio, &c., at 3 Bristo Place, free to Members at any time. Monthly meetings during sessions. Excursions in summer time.

xv.—Rifle Company Shooting Club. Instituted 1873.—*Honorary Presidents*—Lieut.-Colonel Sir Wm. Turner and Professor Balfour. *President*—Captain Hope. *Vice-President*—Lieutenant E. H. Robertson. *Secretary and Treasurer*—Lance-Corporal R. M. Skinner, The Union. *Committee*—Colour-Sergeant Grey, Sergeant Bond, Corporal Thompson, Lance-Corporal Miller, and Private Melville. This Club is open to members of No. 4 (University) Company, Q.R.V.B., R.S. The Club superintends the shooting of the Company. Weekly competitions are held at Hunters' Bog, and an Annual Prize Competition in July, at which numerous prizes are given. A silver teaspoon is given for each weekly competition.

xvi.—Scottish Inter-University Rifle Match.—*Edinburgh Committee*—Captain J. A. Hope; Colour-Sergeant Grey; Sergeant A. N. Bond, Q.R.V.B.; Sergeant R. H. R. M'Kean; Bombardier A. J. Mackenzie, E.C.V.A.; Staff-Sergeant G. M. Pratt; Private J. R. Robinson, V.M.S.C. *Hon. Secretary*—Colour-Sergeant Gavin Grey, Q.R.V.B., 37 Gilmore Place. The Inter-University Challenge Trophy is shot for annually by the four Scottish Universities. Each University sends a team of ten men, of whom at least five must be matriculated students at the date of the match, and the remainder must have attended

a class in the University for at least one Session. Students willing to shoot are requested to communicate with the Secretary.

xvii.—SHINTY CLUB.—*Patrons*—Sir Lewis M'Iver, Bart.; John MacMillan, Esq., Corstorphine; Angus Matheson, Esq., Edinburgh; William M'Hardie, Esq., of Drumblair; and Surgeon-Colonel MacGregor, London. *President*—Professor Struthers. *Vice-President*—Professor M'Kinnon. *Captain*—G. J Meikle. *Vice-Captain*—W. MacNiven. *Hon. Secretary*—D. T. Mackintosh, c/o Hutton, 22 Melville Terrace. *Hon. Treasurer*—James MacLeod, 119 Marchmont Road. Membership is open to all past and present Students of the University. Practice at Inverleith Park on Saturday afternoons during Winter Session.

xviii.—THEOLOGICAL SOCIETY. INSTITUTED 1776. — *Honorary President*—Rev. Professor Flint, LL.D., D.D. *Honorary Vice-Presidents*—Rev. Professor Charteris, D.D.; Rev. Professor Taylor, D.D.; Rev. Professor Kennedy, D.D. *Presidents*—A. W. Mitchell, M.A.; W. Pitcairn Craig; A. M. Gordon, M.A.; John Wallace, M.A.; *Secretary*—R. B. Scott, B.A. *Treasurer*—G. D. Shepherd, M.A.

This Society is open to present and past Students of any Theological Seminary. It meets every Friday evening during the Winter Session, at 7. P.M., for debates and discussions on questions of Theology, Church History, Biblical Criticism, General Ecclesiastical Polity, and kindred subjects.

xix.—TOTAL ABSTINENCE SOCIETY. INSTITUTED 1853.—*Honorary President*—P. A. Young, F.R.C.P.E. *Honorary Vice-Presidents*—Rev. Professor Charteris; Rev. Professor Calderwood; Professor Simpson; J. Shaw Maclaren, F.R.C.S.E.; Charles J. Guthrie, M.A.; A. G. Miller, F.R.C.S.E.; R. L. Orr, LL.B. *Auditor*—R. S. Craig. *President*—A. Graham Donald. *Vice-President*—H. Belasco. *Secretary*—Y. Fukuda, 4 Bernard Terrace. *Secretary for Speakers*—G. M. Macdougall, 23 Sciennes Road. *Treasurer*—H. M. Bell, East Morningside House, Colinton Road.

The condition of membership is total abstinence for the current academic year, "ab Octobre ad Octobrem." All Students who are abstainers are eligible as members. Annual Subscription, 1s. (voluntary).

xx.—UNIVERSITY BATTERY, E.C.V. ARTILLERY.—*Captain*—Professor J. C. Ewart. *Lieutenant*—H. O. Hobson. *2nd Lieutenant*—I. Coates. *Sergeant-Major*—C. J. Caddick. *Sergeants*— C. J. Lauchlan, W. Hamilton, A. E. B. Wood, H. J. R. M'Kean. *Hon. Secretary and Treasurer*—Bombardier Balfour, 17 Walker Street.

Further information may be obtained from Lieutenant Hobson, University Union; from any of the above-named N.C.O's, or at Headquarters, 31 St James' Square.

xxi.—University Hall, St Giles' House (22 St Giles' Street); Riddle's Court (5 Victoria Terrace); Ramsay Lodge (Ramsay Garden); and Blackie House (8 North Bank Street). Founded May 1887.—University Hall is designed as a social residence for Students, Graduates, and others connected with the University. Begun in 1887 at Mound Place, it has since been extended to Riddle's Court, to Ramsay Lodge, to St Giles' House, and to Blackie House. These buildings are within short distances of the University, and include common rooms, private studies, and bedrooms. The rents range from 8s. to 18s. per week, and the board from 12s. to 14s. per week, payable by term or weekly.

The external affairs of the Hall are in the hands of The Town and Gown Association, Limited.

The internal arrangements of each house are managed by a committee of the residents elected monthly. When desired, young Students can be placed under the care of one of the resident tutors, the Rev. H. H. Flower, Pittodrie House, Ramsay Garden; J. A. Thomson, Esq., M.A.; Rev. A. T. Bell, 2 Ramsay Garden, and others. In some of the chambers and larger houses occupied by teachers, graduates, &c., Students can be received as pupils and boarders.

Application for rooms should be made at the different houses. Application for information with regard to general questions on University Hall should be made to Messrs Whitson & Methuen, C.A., 26 Hill Street, Edinburgh.

xxii.—Residence for Women Students. Crudelius House, 6 Archibald Place. Instituted 1894.—The Directors are ladies, professors, and others interested in University work. Terms for board and lodging, from 18s. per week.

Secretary—Thomas B. Whitson, C.A., 26 Hill Street. *Hon. Secretary* (to whom inquiries should be addressed) — Miss H. M'Lean, 35 Howe Street. *Assistant Hon. Secretary*—Miss Whitson, 1 Spence Street.

xxiii.—University U.P. Students' Society. Instituted 1843. —*Honorary Presidents*—Professor Crum Brown, M.D., LL.D.; Rev. Professor Henry Calderwood, LL.D.; Rev. John Hutchison, D.D.; Rev. A. B. Cameron, D.D. *President*—Robert Gray, M.A. *Vice-Presidents*—W. H. Sellar, M.A.; John Adam Gray. *Secretary*—M. N. G. Fallas. *Treasurer*—R. Donaldson.

The Society meets every Saturday evening during the Winter Session, in the College Buildings, Castle Terrace, at Seven o'clock.

xxiv.—Women's Debating Society. Instituted 1893.—*President*—Margaret Drummond. *Vice-Presidents*—Alice A. Nicol, Marion Gray. *Secretary*—Eleanor J. C. Lorimer, 9 Gloucester Place. *Treasurer*—Annie C. Sutherland.

The Society meets every Friday during the Winter Session, at 5 P.M., within the University, for Debate and Literary Criticism.

REGULATIONS OF THE JOINT BOARD OF EXAMINERS OF THE SCOTTISH UNIVERSITIES FOR THE PRELIMINARY EXAMINATION IN ARTS AND SCIENCE AND IN MEDICINE—ISSUED 30TH JANUARY 1897.

The following additions have been made to the above Regulations :—

I. In connection with the Cambridge Senior Locals, page 15 (7) (*b*) : —The pass *with distinction* in Modern Languages will be accepted as exempting *pro tanto* for next October [1897].

II. After the date of September 1898, the following Regulations will apply to the Leaving Certificate Examination[1] :—

1. The provisions of Ordinance No. 44, § III. (Regulations for Degrees in Arts, Supplementary to Ordinance No. 11), shall be applied in accepting the Leaving Certificate as an equivalent for the Preliminary Examination, viz. : "A candidate shall be obliged to pass in all the required subjects at one, or not more than two, examinations, provided that he may offer himself for re-examination as often as may be necessary to satisfy this condition."

2. If a candidate claim partial exemption from the Preliminary Examination, on the ground of having passed in certain subjects in the Leaving Certificate Examination, he shall not be allowed to reckon as *pro tanto* the certificates gained at more than one Leaving Certificate Examination, and he must complete the whole examination at one Preliminary, provided that he may repeat that examination as often as may be necessary, being examined on each occasion in all the subjects in which he failed, and which he did not profess in his Leaving Certificate Examination.

M. C. TAYLOR, *Convener.*

10*th April* 1897.

[1] [These Regulations will come into force at the beginning of the academic year 1898-99.]

Class Prize and Honours Lists.

FACULTY OF ARTS.

SUMMER SESSION, 1896.

HUMANITY.

HONOURS CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. Victor Caldwell, Edinburgh (*Medal*); 2. Ethelwyn Lemon, Northumberland: D. H. Macgregor, Dumfries; and B. H. Richardson—Edinburgh—equal.

SECOND-CLASS CERTIFICATES OF MERIT.—5. John M. Darling, Edinburgh: 6. Alexander Waddell, Edinburgh; 7. Donald J. Boyd, Edinburgh; and Alexander Black, East Calder—equal.

LATIN PROSE COMPOSITION.—1. Ethelwyn Lemon, Northumberland, and D. H. MacGregor, Dumfries—equal; 3. B. H. Richardson, Edinburgh.

SENIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. Theodore B. Copeland, Edinburgh (*Medal*); 2. Alice B. Lennie, Trinity; 3. Charlotte B. MacDonald, Aberdeen; 4. Robert D. Bell, Edinburgh; Marion I. Gray, Edinburgh; and Richard H. Moar, Orkney—equal; 7. William P. Borland, Prestonpans; 8. James Lochhead, Earlston.

SECOND-CLASS CERTIFICATES OF MERIT.—9. James Melville, Edinburgh; 10. David Drysdale, Edinburgh; 11. Margaret C. W. Young, Edinburgh; 12. Nettie R. Duncan, Kinross; 13. Amy S. Thomson, Edinburgh; 14. Sara G. Croal, Edinburgh; 15. William Jeffrey, Newcastle-on-Tyne; 16. John C. Guthrie, Stirling; 17. Alexander Grant, Banffshire; 18. David M. Johnstone, Edinburgh; 19. Edward H. Calvert, Annan; 20. William G. Mackean, Edinburgh, and James Pryde, Edinburgh—equal; 22. Grace F. Matthew, Corstorphine.

LATIN PROSE COMPOSITIONS—PRIZES.—1. Theodore B. Copeland, Edinburgh; 2. James Lochhead, Earlston, and Richard H. Moar, Stromness—equal.

HONOURABLE MENTION.—4. Marion I. Gray, Edinburgh, and Alice B. Lennie, Trinity—equal; 6. William Jeffrey, Newcastle-on-Tyne; 7. William C. Douglas, Edinburgh, and Charlotte B. Macdonald, Aberdeen—equal; 9. Alexander Grant, Banffshire; James Pryde, Edinburgh; and Margaret C. W. Young, Edinburgh—equal.

ROMAN LITERATURE AND HISTORY.

PRIZES.—1. Robert D. Bell, Edinburgh, and Marion I. Gray, Edinburgh—equal.

Honourable Mention. 3, Charlotte B. Macdonald, Aberdeen; 4, Alice B. Lennie, Trinity; 5. William P. Borland, Prestonpans; Theodore B. Copeland, Edinburgh; and James Melville, Edinburgh—equal.

JUNIOR CLASS.

Prizes and First-Class Certificates of Merit.—1. James Gray, Cape Colony; Helen Hoyle, Edinburgh; and Mary G. Williamson, Edinburgh—equal.

Second-Class Certificates of Merit.—4. Tom W. Stewart, Edinburgh; 5. Rosanna Clements, Edinburgh; 6. William H. Meikle, Inverary; 7. David Heggie, Bathgate; 8. Alice B. Biscombe, Edinburgh; 9. J. A. Robinson, Edinburgh.

Latin Prose Composition. 1. James Gray, Cape Colony, and William H. Meikle, Inverary—equal.

FRANCIS R. JAMIESON, M.A., *Lecturer.*

GREEK.

HONOURS CLASS—HONOURS GRADUATION HALF-COURSE.

Prize and First-Class Certificate of Merit.—1. J. Y. Bell, Edinburgh.

Second-Class Certificate of Merit.—2. J. M. Dunnett, Kilmarnock.

Greek Prose Composition.—J. Y. Bell.

SENIOR CLASS—PASS GRADUATION HALF-COURSE.

Prizes and First-Class Certificates of Merit.—1. Theodore B. Copeland, Edinburgh, and T. M. Forsyth, Leith—equal; 3. R. A. Wilson, Broughty-Ferry.

Second-Class Certificates of Merit.—4. C. H. Moore, Musselburgh; 5. J. A. Glover, Dumfries, and J. Pryde, Edinburgh—equal; 7. Wm. G. Brown, Penicuik.

Greek Prose Composition.—Theo. B. Copeland.

History and Literature.—R. A. Wilson.

JUNIOR CLASS—PRELIMINARY COURSE.

Prize and First-Class Certificate of Merit.—1. W. King H. Macdonald, London.

Second-Class Certificates of Merit.—2. W. H. Meikle, Inverary; 3. David Heggie, Bathgate; 4. A. Eliz. F. Allardice, Edinburgh.

A. DOUGLAS THOMSON, M.A., *Lecturer.*

ENGLISH LITERATURE (Honours Class).

First-Class Certificates.—1. Edith Hooper, Tenby, and John Purves, Edinburgh (*Medallists*)—equal; 3. Donald Macintosh, Kingussie.

SECOND-CLASS CERTIFICATES.—4. T. S. Muir, M.A., Selkirk; 5. Oswald Farquhar Lumsden, Aberdeenshire; 6. George S. Dickson, Blairgowrie.

G. GREGORY SMITH, M.A., *Lecturer.*

ELEMENTARY HEBREW.

FIRST-CLASS CERTIFICATES OF MERIT.—1. Sam. S. Sanderson, M.A., Edinburgh (*Medallist*); 2. A. Ross Yeoman, M.A., Lincolnshire; 3. Geo. Douglas Shepherd, M.A., Ecclesmachen; 4. Marshall N. G. Gray, M.A., Edinburgh.

SECOND-CLASS CERTIFICATES OF MERIT.—5. Robert Inglis, M.A., Crieff; 6. Andrew M. Anderson, Edinburgh.

The following were present at one examination, and attained to the rank of FIRST-CLASS CERTIFICATES:—William C. Morton, Trinidad; William Marshall Low, Leith.

ELEMENTARY ARABIC.

MEDAL AND FIRST-CLASS CERTIFICATE OF MERIT.—1. Jacobus Rudolff Hugo, B.A., Cape Colony.

SECOND-CLASS CERTIFICATE OF MERIT.—2. Donald G. Ross, M.A., Edinburgh.

HONOURABLE MENTION.—Wm. Charles Ross, Edinburgh.

D. M. KAY, B.Sc., B.D.,
University Assistant in Semitic Languages.

MATHEMATICS.

ADVANCED CLASS—HONOURS HALF-COURSE.

FIRST-CLASS CERTIFICATES.—1. R. H. Macnair (*Medallist*); 2. David Drysdale; 3. Robert D. Bell and James Lochhead—equal; 5. Alice B. Lennie.

SECOND-CLASS CERTIFICATE.—6. David Johnstone.

HIGHER SENIOR.

FIRST-CLASS CERTIFICATE.—1. Arthur Berriedale Keith (*Medallist*).

SECOND-CLASS CERTIFICATES.—2. John May Darling; 3. Alexander Flint.

LOWER SENIOR.

FIRST-CLASS CERTIFICATES.—1. James Macdonald Dunnet (*Medallist*); 2. James Stirling Ross; 3. Henry Liddell; 4. Roderick M'Leod Shearer.

SECOND-CLASS CERTIFICATES.—5. Theodore B. Copeland; 6. J. Y. Bell; 7. Mary Tweedie; 8. Alexander Waddell; 9. Alexander Archibald Fraser.

JAMES MITCHELL, M.A., B.Sc., *Substitute Lecturer.*

ADVANCED EXPERIMENTAL PHYSICS.

PRIZE AND FIRST-CLASS CERTIFICATE.—D. Banks.

ADVANCED NATURAL PHILOSOPHY (TUTORIAL).

PRIZES AND FIRST-CLASS CERTIFICATES.—1. J. T. Young (*Medal*); 2. J. C. Leighton.

SECOND-CLASS CERTIFICATE.—3. E. M. Anderson and R. Bell—equal; 5. W. E. Malherbe; 6. P. S. Hardie; 7. G. Ednie.

W. PEDDIE, D.Sc., *Lecturer.*

WINTER SESSION, 1896-97.

LATIN.

HONOURS CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. William Dunbar, Edinburgh; 2. William Rennie, Addiewell (*Medallists*); 3. C. G. Mackay, Pitlochry; 4. J. Stirling Ross, Edinburgh.

SECOND-CLASS CERTIFICATES OF MERIT.—5. J. Y. Bell, Edinburgh; 6. Augusta M. C. Davidson, Edinburgh; 7. Alexander Flint, Edinburgh.

PRIZES FOR LATIN PROSE COMPOSITION.—1. W. Rennie, Addiewell; 2. W. Dunbar, Edinburgh.

HONOURABLE MENTION.—3. J. Lees, Ayr; 4. J. S. Ross, Edinburgh.

PRIZE FOR HISTORY OF LITERATURE.—J. Lees, Ayr.

PRIZE FOR ESSAY.—Ethelwyn Lemon, Northumberland.

PRIZE FOR ORIGINAL LATIN COMPOSITION.—J. Lees.

PRIZE FOR VERSE COMPOSITION.—Kenneth N. Knox.

ENTITLED TO FIRST-CLASS CERTIFICATES, BUT NOT COMPETING.—A. B. Keith, J. Lees, S. G. Campbell.

SENIOR LATIN.

I. FIRST-CLASS CERTIFICATES OF MERIT.—1. James Crerar, Cumberland; 2. Jessie Lees, Ayr; 3. Hector J. Anderson, Ardlui (*Medals*); 4. George V. Dunnett, Kilmarnock; 5. J. B. Jamieson, Portobello; 6. Thomas Davidson, Edinburgh; 7. W. D. R. Prentice, Joppa; 8. Malcolm Campbell, Argyleshire; 9. Isabella W. Stevenson, Edinburgh; 10. Kenneth Maclennan, Ross-shire; 11. J. P. Dunn, Edinburgh; 12. J. A. Ferguson, Edinburgh (*Prizes*); 13. Alice B. Lennie, Trinity; 14. Alexander Thomson, Rothesay; 15. T. F. Scott, Cromarty; 16. John Macrae, Kintyre; 17. James Watt, Edinburgh; 18. W. S. Colville, Campbeltown.

II. SECOND-CLASS CERTIFICATES OF MERIT.—19. T. C. Lowe, Dollar; 20. John Ogilvie, Broughty Ferry; 21. Helen S. Neill, Edinburgh; 22. Jessie A. Linton, Edinburgh; 23. Mary G. Williamson, Edinburgh; 24. J. R. Hutton, Birkenhead; 25. Marion I. Gray, Edinburgh; 26. W. E. Wait, Bournemouth; 27. Margaret S. Cleghorn, Alyth; 28. Robert Hamilton, Dumfries; 29. Helen

Macfie, Whithorn; 30. R. H. Moar, Orkney; 31. O. B. Milligan, Edinburgh; 32. William Mackenzie, Edinburgh; 33. T. M. Watt, Ayr; 34. James Girdwood, Ayr; 35. J. S. Mackay, Grangemouth; 36. Hugh Oswald, Kirkcaldy; 37. D. K. Bogie, Edinburgh; 38. Marion J. G. Ridpath, Edinburgh; 39. James Winchester, Edinburgh; 40. D. G. M. Leith, Slateford; 41. A. C. Taylor, Edinburgh; 42. W. K. Tait, Caithness.

PRIZES FOR LATIN PROSE COMPOSITION.—1. J. P. Dunn; 2. J. Crerar.

HONOURABLE MENTION.—3. Jessie Lees, H. J. Anderson, and T. Davidson—equal; 6. K. Maclennan; 7. G. V. Dunnett; 8. W. D. R. Prentice; 9. Isabella W. Stevenson.

PRIZE FOR LATIN VERSE COMPOSITION.—W. D. R. Prentice.

PRIZE FOR HISTORY AND LITERATURE.—1. G. V. Dunnett.

HONOURABLE MENTION.—2. J. B. Jamieson.

JUNIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. James Brown Duncan, Forfar; 2. Roderick Barron, Kingussie—(*Medallists*); 3. William N. Prophet, Forfar; 4. John Inch Low, Blairgowrie; 5. James Anderson, Forres; 6. Allan A. Fraser, Edinburgh; and Samuel Robertson, Edinburgh—equal; 8. John Macleod, Thurso.

SECOND-CLASS CERTIFICATES OF MERIT.—9. John S. Wilson, Edinburgh; 10. Andrew B. Lorimer, Thornhill; 11. Nellie S. Shearer, Thurso; 12. Harry D. Fraser, Edinburgh; 13. Robert A. Brown, Haddington; 14. Isabella M. Ogilvie, Edinburgh; 15. George Philip, Ross-shire; 16. Ernest Lawson, Fifeshire; 17. David J. Young, Blairgowrie; 18. John E. Geddes, Wick; 19. A. G. Anderson, Forres; 20. Margaret S. Rutherford, Edinburgh; 21. David O. Dykes, London; 22. W. P. Gillieson, Caithness; and Jane M. Robertson, Dumfries—equal; 24. Robert Nichol, Hawick.

PRIZES FOR LATIN PROSE COMPOSITION.—1. James Brown Duncan, 2. James Anderson.

HONOURABLE MENTION.—3. Roderick Barron; 4. John Macleod; 5. John I. Low; 6. Samuel Robertson; 7. Allan A. Fraser and John E. Geddes, Wick—equal; 9, A. G. Anderson, Forres, and William N. Prophet—equal; 11. George D. W. Millikin, Thurso; 12. Elizabeth C. Milroy, Kirkcudbright; 13. Margaret S. Rutherford, Edinburgh.

PRIZES FOR ROMAN LITERATURE AND HISTORY.—1. William N. Prophet; 2. Nellie S. Shearer.

HONOURABLE MENTION.—3. Roderick Barron; 4. James Brown Duncan and John I. Low—equal; 6. James Anderson.

W. R. HARDIE, M.A., *Professor.*

GREEK.

HONOURS CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. William Rennie, Addiewell *Medal*); 2. William Dunbar, Edinburgh.

SECOND-CLASS CERTIFICATES OF MERIT. — 3. Victor Caldwell, Edinburgh; 4. John Lees, Ayr; 5. William A. Curtis, Edinburgh, and B. H. Richardson, Edinburgh—equal; 7. James S. Ross, Edinburgh; 8. Augusta M. C. Davidson, Edinburgh.

COMPOSITION PRIZE.—William Dunbar and William Rennie—equal.

PRIZE FOR CRITICAL WORK.—A. B. Keith, Joppa.

A. B. Keith, Joppa, and Sidney G. Campbell, Londonderry, were entitled to First-Class Certificates of Merit, but not competing.

SENIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT.—1. D. H. MacGregor, Dumfries; 2. James Crerar, Cumberland (*Medals*); 3. Hector J. Anderson, Ardlui; 4. W. D. R. Prentice, Joppa; 5. James B. Jamieson, Portobello; 6. George V. Dunnett, Kilmarnock; 7. Thomas Davidson, Edinburgh; 8. Alexander Thomson, Rothesay; 9. Kenneth Maclennan, Ross-shire; 10. Theo. B. Copeland, Aberdeenshire.

SECOND-CLASS CERTIFICATES OF MERIT. —11. John P. Dunn, Edinburgh; 12. William S. Colville, Campbeltown; 13. John MacRae, Kintyre; 14. Thomas F. Scott, Cromarty; 15. James Girdwood, Ayr; 16. Walter E. Wait, Bournemouth; 17. John A. Ferguson, Edinburgh, and Oswald B. Milligan, Aberdeen—equal; 19. John Ogilvie, Broughty-Ferry; 20. Thomas C. Lowe, Dollar; 21. Malcolm Campbell, Argyllshire.

COMPOSITION PRIZES.—1. James Crerar; 2. Hector J. Anderson.

HISTORY PRIZE.—D. H. MacGregor.

HONOURABLE MENTION.—G. V. Dunnett.

LITERATURE PRIZE.—D. H. MacGregor and T. F. Scott—equal.

HONOURABLE MENTION.—James Crerar.

JUNIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES OF MERIT. — 1. James Anderson, Forres (*Medal*); 2. Roderick Barron, Kingussie; 3. James B. Duncan, Forfar.

SECOND-CLASS CERTIFICATES OF MERIT.—4. William N. Prophet, Forfar; 5. John MacLeod, Thurso; 6. Samuel Robertson, Edinburgh; 7. John Stuart Wilson, Edinburgh; 8. W. King H. Macdonald, London; 9. John E. Geddes, Wick; 10. John Inch Low, Blairgowrie; 11. Ernest Lawson, Fife; 12. A. G. Anderson, Forres; 13. William P. Gillieson, Thurso; 14. William Jardine, Haddington.

COMPOSITION PRIZE.—James Anderson.

Honourable Mention.—Roderick Barron and James B. Duncan.
History Prize.—Roderick Barron.
Honourable Mention.—James Anderson, James B. Duncan, and William N. Prophet.
Literature Prize.—James Anderson.
Honourable Mention.—Roderick Barron.
Grammar Prize.—James Anderson.

S. H. BUTCHER, LL.D., *Professor.*

RHETORIC AND ENGLISH LITERATURE.

HONOURS CLASS (FULL COURSE).

Prize and First-Class Certificate.—1. G. Dundas Craig, Dundee (*Medallist*).
Second-Class Certificates.—2. Donald T. Mackintosh, Kingussie; 3. T. B. M. Lamb, M.A., Cumberland.

ORDINARY CLASS.

Class Prizes and First-Class Certificates.—1. John Purves, Edinburgh; 2. James Y. Bell, Edinburgh (*Medallists*); 3. P. Taylor Hall, Edinburgh; 4. Alex. S. Crichton, Arbroath; 5. John Millar, Barrhill; 6. Thomas Paterson, Edinburgh; 7. William A. Dunnett, Kilmarnock; 8. James Winchester, Edinburgh; 9. Margaret Watson, Kirkcudbright, and Donald Lamond, Tiree—equal; 11. Jeanie C. Thomson, Rothesay; 12. George Henderson, Ayr; 13. Margaret Cleghorn, Dundee; 14. B. H. Richardson, London; 15. J. B. Macdonald, Kinglassie.
Second-Class Certificates.—16. Robert G. Paterson, Edinburgh; 17. Alex. Waddell, Kelso; C. F. Grant, Dundee, and Annie Dempster, Lumsden—equal; 20. Elizabeth Miller, Perth, and Charles Moore, Musselburgh—equal; 22. Edward Blades, Armadale; Joanna Brock, Wick; Lucy MacFarlane, Haddingtonshire; James K. Macgregor, Edinburgh; Elizabeth Pagan, Cupar; and Hugh Winchester, Kinross—equal; 28. Harriet Maclaren, Larbert, and Margaret Young, Edinburgh—equal; 30. John Strachan, Edinburgh; 31. Chrissie Black, Greenock; Alex. Cormack, Ayr; Henry C. Duncan, Dalkeith; Elsie Fairweather, Dundee; and Susan Thomson, Tillicoultry—equal.
Essay Prizes and First-Class Certificates.—1. James Y. Bell, Edinburgh; 2. John Purves, Edinburgh (*Medallists*); 3. P. Taylor Hall, Edinburgh; 4. James Barron, Inverness; Ernest Jessop, Yorkshire; and James Winchester, Edinburgh—equal; 7. Margaret Cleghorn, Dundee; Elizabeth Pagan, Cupar; and B. H. Richardson, London—equal; 10. William A. Dunnett, Kilmarnock.
Second-Class Certificates.—11. Alexander S. Crichton, Arbroath, and John Millar, Barrhill—equal; 13. Robert G. Paterson, Edin-

burgh, and Thomas Paterson, Edinburgh—equal; 15. Hugh Winchester, Burghead; 16. J. B. Macdonald, Kinglassie; 17. C. F. Grant, Dundee; 18. James K. Macgregor, Hertfordshire, and Harriet Maclaren, Larbert—equal; 20. Annie Dempster, Lumsden; Elizabeth Miller, Perth; and Alex. Waddell, Kelso—equal; 23. George Henderson, Ayr, and Jeanie C. Thomson, Rothesay—equal.

PRIZES FOR VERSE.—John Purves, Edinburgh, and Elizabeth Pagan, Cupar—equal.

GEORGE SAINTSBURY, M.A., *Professor.*

OLD AND MIDDLE ENGLISH.

HONOURS CLASS (FULL COURSE).

FIRST-CLASS CERTIFICATES.—Donald T. Mackintosh, Kingussie, and George Dundas Craig, Dundee—equal (*Medals*).

G. GREGORY SMITH, M.A., *Lecturer.*

FRENCH.

HONOURS CLASS.

FIRST-CLASS CERTIFICATES.—1. Richard Currall, Leith; 2. George Brown, Hawick.

ORDINARY CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. Edith Graham, Edinburgh, and James Melville (*Medallists*); 3. Elizabeth Duncan, Edinburgh; 4. James Oliver, Edinburgh.

FIRST-CLASS CERTIFICATES.—5. B. Dalgety Black, Edinburgh, and Mary Tweedie, Edinburgh; 7. Henry Strong, Edinburgh; 8. Sara Croal, Edinburgh, and W. C. Douglas, Edinburgh; 10. Robert Donaldson, Musselburgh; 11. Arthur Firth, Edinburgh; 12. Jessie R. Smith, Aberlour.

SECOND-CLASS CERTIFICATES.—13. William Bryce, Govan; 14. Bessie Hogg, Egypt; 15. Janet Thyne, Edinburgh; 16. John Strachan, Edinburgh; 17. Annie MacDonald, Ross-shire; 18. John Pattison, Canonbie; 19. James S. West, Coupar-Angus; 20. Jessie Lees, Ayrshire; 21. Margaret S. Cook, Dumfriesshire; 22. John More, Edinburgh.

CH. SAROLEA, Ph.D., D.Litt., *Lecturer.*

GERMAN.

ORDINARY CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. E. A. Duncan (*Medallist*); 2. S. G. Croal.

FIRST-CLASS CERTIFICATES.—3. W. D. Bowden; 4. J. Melville; 5. R. A. Edwards; 6. J. Thyne; 7. M. P. G. Cook; 8. M. S. R. Cook.

SECOND-CLASS CERTIFICATES.—9. J. R. Moir; 10. J. H. Anderson; 11. W. N. Sinclair; 12. A. Hunter.

HONOURS CLASS.

PRIZE AND FIRST-CLASS CERTIFICATE.—1. Jean C. Thorburn (*Medallist*).

FIRST-CLASS CERTIFICATES.—2. George Brown; 3. R. T. Currall.

OTTO SCHLAPP, *Lecturer.*

SANSKRIT AND COMPARATIVE PHILOLOGY.

SENIOR SANSKRIT.

Rabindra Kumar Naug, *Class Medal and First-Class Certificate of Merit:* James Elmsley Wood, M.A., *Special Certificate of High Distinction.*

JUNIOR SANSKRIT.

Arthur B. Keith, *Class Medal and First-Class Certificate of Merit.*

J. EGGELING, Ph.D., *Professor.*

CELTIC LANGUAGE AND LITERATURE.

CELTIC CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. John M'Nab, Dalmally (*Medallist*); 2. Roderick Morrison, Stornoway.

SECOND-CLASS CERTIFICATE.—Roderick Mackenzie, Lewis.

GAELIC CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. Donald MacDonald, Tobermory (*Medallist*); 2. James Tolmie, Nairn; 3. Mrs M. M'Ewan, Edinburgh; 4. J. M. Millar, Fort-William; 5. The Earl of Cassillis, Culzean Castle, Ayrshire.

SPECIAL PRIZES.—£10, 10s., given by the Highland Society of London—John M'Nab. Book prizes, given by John Mackay, Esq., Hereford, for Excellence in Scottish Gaelic—Celtic Class—John M'Nab. Gaelic Class—Donald Macdonald. For Essay written in Scottish Gaelic—Roderick Morrison.

DONALD MACKINNON, M.A., *Professor.*

LOGIC AND METAPHYSICS.

ADVANCED CLASS—METAPHYSICS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. George C. Rankin, Edinburgh (*Bruce of Grangehill and Falkland Prize and Medal*); 2. G. R. T. Ross, Arbroath, and C. M. Campbell, Edinburgh—equal; 4. Lilias A. J. Fraser, Edinburgh (*Elizabeth Hamilton Prize*); 5. Alfred G. Hogg, Edinburgh, and Bruce M'Ewen, Stonehaven—equal.

JUNIOR CLASS—LOGIC AND PSYCHOLOGY.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. C. G. Mackay, Pitlochry, and J. M. Shaw, Inverness—equal; 3. J. Y. Bell, Edinburgh (*Medallists*); 4. Jeanie C. Thomson, Rothesay; 5. R. D. Bell, Edinburgh; W. A. Dunnett, Kilmarnock; A. J. Forrest, Edinburgh; J. Chrystal Macmillan, B.Sc., Edinburgh—equal; 9. Bessie K. Hogg, Assiout, Egypt; 10. Peter Campbell, Oban; James Melville, Edinburgh; and J. S. Ross, Edinburgh—equal; 13. A. M. Sharp, Galashiels; 14. David Drysdale, Edinburgh; 15. Jessie A. M'Kechnie, Edinburgh; 16. William Dunbar, Edinburgh; 17. Edith Graham, Edinburgh; 18. Chrissie M. Ross, Arbroath, and Lucy E. M'Farlane, Prestonkirk—equal.

SECOND-CLASS CERTIFICATES.—20. James Colville, London, and Victor Caldwell, Belfast—equal; 22. Lilian C. Graham, Edinburgh, and H. C. Liddell, Edinburgh—equal; 24. Jessie A. Linton, Edinburgh; 25. James Lochhead, Earlston, and S. F. Stewart, Edinburgh—equal; 27. Agnes M. Smith, Edinburgh, and J. W. Meldrum, Edinburgh—equal; 29. D. M. Johnstone, Edinburgh; 30. William Gentle, Edinburgh; 31. Marian J. G. Ridpath, Edinburgh; 32. W. G. Brown, Penicuik; 33. W. M. Henderson, Dumfries; Charles Urquhart, Ross-shire; and R. S. Enever-Todd, Musselburgh—equal.

ANDREW SETH, LL.D., *Professor.*

MORAL PHILOSOPHY.

HONOURS CLASS.

PRIZES.—1. George C. Rankine, Edinburgh (*Medal*); 2. G. R. T. Ross, Arbroath; 3. Bruce M'Ewen, Stonehaven.

FIRST-CLASS CERTIFICATES.—4. Alfred G. Hogg, Edinburgh; 5. Æneas Rose, Blair-Atholl; 6. Charles N. Campbell, Edinburgh.

SECOND-CLASS.—7. James H. Michie, Perth.

ORDINARY CLASS.

HONOURS LIST.

FIRST-CLASS CERTIFICATES.—1. John Adam Gray, Edinburgh; 2. Lilias A. G. Fraser, Edinburgh (*Medallists*); 3. David H. Macgregor, Dumfries; 4. Marshall N. G. Fallas, Dumfries; 5. A. S. Ballantyne, Galashiels; 6. Edith Hooper, South Wales, and P. Laurence K. Mudie, Edinburgh—equal (*Prizes*); 8. W. P. Borland, Prestonpans; 9. William Husband, Edinburgh; 10. Agnes Elizabeth F. Allardice, Edinburgh; 11. M. Amy S. Thomson, Edinburgh; 12. Jessie Chrystal Macmillan, B.Sc., Edinburgh; 13. William Pringle, Crossford; 14. James Mathers, Londonderry; 15. Eleanor J. C. Lorimer, Edinburgh; 16. F. C. Minto, Edinburgh; 17. Henry Duncan, Edinburgh; and Marshall N. G. Gray, M.A., Edinburgh—equal; 19. Elizabeth A. Duncan, Edinburgh; 20. Lilian C. Graham, Edinburgh; 21. Isabella C.

Black, East Calder; 22. Edith Graham, Edinburgh; 23. George S. Dickson, Newport; 24. A. J. Forrest, Edinburgh; 25. Peter Taylor Hall, Edinburgh.

SECOND-CLASS CERTIFICATES.—26. James A. Davidson, Edinburgh, and George F. Soutar, Dundee—equal; 28. S. A. K. Wilson, Edinburgh; 29. Jane M. Symington, Ayr; 30. Bertha Blackstock, Kirkcaldy, and Alexander S. Crichton, Arbroath — equal; 32. Charlotte B. Macdonald, Aberdeen; 33. J. K. Macgregor, Edinburgh; 34. W. M. Henderson, Dumfriesshire; 35. Richard Bell, Dumfriesshire, and William Porter, Edinburgh—equal; 37. W. A. Dunnett, Kilmarnock; 38. William Hamilton, Tain, and James Neil, Edinburgh — equal; 40. J. L. Nelson, Edinburgh; 41. Donald Grant, Carr Bridge; 42. James J. Malloch, Juniper Green; 43. A. W. Bain, Musselburgh, and Annie Macdonald, Ross-shire—equal; 45. A. M. Anderson, Edinburgh; 46. John Ross, Edinburgh; 47. J. W. Niven, South Shields; 48. H. M. Ballingall, Dundee; 49. J. S. Mackay, Grangemouth.

SPECIAL STUDY OF KANT'S ETHICS.

PRIZES.—1. D. H. Macgregor, Dumfries. (*Medallist*); 2. J. Adam Gray, Edinburgh; 3. Agnes Elizabeth F. Allardice.

HONOURABLE MENTION.—4. Isabella C. Black, East Calder; 5. Henry C. Duncan, Edinburgh.

H. CALDERWOOD, LL.D., *Professor.*

COMMERCIAL AND POLITICAL ECONOMY AND MERCANTILE LAW.

PRIZES.—1. J. Adam Gray, Edinburgh, (*Medal and Merchant Company's Prize of* £10, 10s.); 2. Robert F. Irving, Juniper Green, and William Bennett Munro, Ontario, Canada—equal (*George Watson's Prize and Daniel Stewart's Prize*); 4. Th. B. Copeland, Edinburgh, and John Leslie, Aberdeen—equal; 6. M. N. G. Fallas, Dumfries; 7. James Dunlop, Dumbartonshire; 8. Alexander Flint, Edinburgh; 9. Peter Ward, Edinburgh; 10. B. K. Acharyya, Midnapur, Bengal, India; 11. A. B. Cooper, Edinburgh.

HONOURS CERTIFICATES.—12. William Pringle, Crossford, Lanarkshire; 13. B. H. Richardson, Edinburgh, and R. A. Wilson, Forfarshire—equal; 15. J. J. M'Vittie, Edinburgh; 16. D. A. Stewart, Caithness, and John Pattison, Dumfriesshire—equal; 18. D. D. Cameron, Ross-shire; 19. William M'Clymont, Roxburghshire; 20. John M. Darling, Edinburgh; 21. John Smart, M.A., Edinburgh; 22. John Laidlaw, Selkirkshire.

ESSAYS.—1. William Porter, Edinburgh (*Prize*); 2. W. B. Munro; 3. Alexander Flint; 4. D. A. Stewart; 5. John Smart, M.A.

HONOURABLE MENTION FOR ONE ESSAY.—John E. M'Gee, Ohio, U.S.A., and B. K. Acharyya, India.

J. SHIELD NICHOLSON, D.Sc., *Professor.*

THEORY, HISTORY, AND ART OF EDUCATION.

FIRST-CLASS CERTIFICATE.—*Louisa R. Boyd, M.A., *W. P. Borland, and *Alex. Brown—equal (*Medallists*); Judith Atkinson; *Amy G. Few; Elizabeth Gardiner; *Jessie Mackechnie; Isobel B. Mason; *Alice Paterson; Jessie A. Robertson; Agnes M. Smith; Kate C. Stewart; *Jeanie C. Thomson; *David H. Christie; James A. Grant; James T. Kerr; James B. Macdonald; William Macpherson; William E. Malherbe.

S. S. LAURIE, LL.D., *Professor.*

MATHEMATICS.

ADVANCED HONOURS CLASS.

FIRST-CLASS CERTIFICATES.—1. J. C. Leighton, Dundee (*Medal*); R. Bell, Dumfries; *A. Brown, Edinburgh; J. M. Low, Leith; J. T. Young, Edinburgh.

SECOND-CLASS CERTIFICATES.—D. M. Aitken, Edinburgh; E. M. Anderson, Falkirk; G. Ednie, Edinburgh; P. S. Hardie, Edinburgh; W. E. Malherbe, Cape Colony; J. B. Meiklejohn, Thurso; W. D. Proudfoot, Perthshire; G. A. Russell, Dundee.

INTERMEDIATE HONOURS CLASS.

FIRST-CLASS CERTIFICATES.—(1) D. Drysdale, Dunfermline (*Medal*); R. H. Macnair, Isle of Man; *W. G. Napier, Edinburgh.

SECOND-CLASS CERTIFICATE.—R. Norrie, Dundee.

SENIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. J. M. Dunnett, Kilmarnock (*Medal*); 2. R. M. Shearer, Edinburgh; 3. A. Cunnison, Edinburgh; J. M. Darling, Edinburgh; and A. Milne, Edinburgh—equal; 6. G. Clark, Falkirk; 7. W. Gentle, Dundee; 8. W. Anderson, Dysart; and E. Blades, Armadale—equal; 10. A. Waddell, Edinburgh; 11. H. Spiers, Gavington, Duns.

SECOND-CLASS CERTIFICATES.—C. Anderson, Orkney; Miss A. G. Brown, Kirkcudbright; J. C. Cameron, Edinburgh; H. F. Eggeling, Edinburgh; W. Geddie, Edinburgh; W. R. Halliday, Edinburgh; R. Hamilton, Dumfries; J. T. Kerr, Newcastle-on-Tyne; J. R. Milne, Huntly; D. G. Mitchell, Edinburgh; W. A. Mowat, Bombay; A. C. Murphy, Edinburgh; W. K. H. M'Donald, London; A. Mackie, Edinburgh; R. W. M'Luckie, Stirling; T. F. Scott, Cromarty; W. Scott, Edinburgh; J. M. Shaw, Inverness; Miss J. W. Stevenson, Edinburgh; J. Tait, Kirkwall; Miss J. T. Thomsen, Leith; R. L. Wilson, Dundee.

The Newton Bursary in Senior Mathematics has been awarded to J. M. Dunnett, Kilmarnock.

*Would have obtained the first prize had the student been attending for the first time.

JUNIOR CLASS.

PRIZES AND FIRST-CLASS CERTIFICATES.—1. D. P. Grubb, Dundee; (*Medal*); 2. T. S. Lindsay, Cowdenbeath; 3. G. D. W. Millikin, Thurso; 4. G. Philip, Ross-shire, and D. J. Young, Blairgowrie—equal; 6. Mary W. Henderson, Edinburgh; 7. J. B. Duncan, Forfar.

SECOND-CLASS CERTIFICATES.—J. J. Donaldson, Wishaw; J. H. Duncan, Lochgelly; W. P. Gillieson, Caithness; J. Y. Hunter, Hawick; G. V. M'Nab, Leith; Miss J. M. M'Queen, Stornoway; R. Nichol, Hawick; D. Paton, Lochgelly; T. G. Philip, Brechin; J. C. Ritchie, Leith; W. Young, Crieff.

The Kelland Prize, open to members of the Class of the previous winter session, was awarded to A. Milne, Edinburgh.

G. CHRYSTAL, LL.D., *Professor.*

NATURAL PHILOSOPHY.

ADVANCED CLASS.

PRIZEMEN.—1. J. C. Leighton, Dundee (*Medallist*); 2. G. Ednie, Belfast; 3. D. M. Aitken, Singapore.

SECOND-CLASS CERTIFICATES (in alphabetical order).—4. E. M. Anderson, Falkirk; R. Bell, Dumfriesshire; P. S. Hardie, Edinburgh; W. E. Malherbe, Cape Colony; J. B. Meiklejohn, Thurso; J. T. Young, Edinburgh.

Note.—A. Brown, Millerhill, would have been a medallist had he not previously attended the Class.

ORDINARY CLASS—HIGHER DIVISION.

PRIZES.—1. J. Tait, Kirkwall (*Medallists*); 2. H. C. Liddle, Edinburgh; 3. H. Spiers, Duns; 4. Miss M. Forrest, Banffshire.

SECOND-CLASS CERTIFICATES.—5. J. M. Dunnett, Northumberland; 6. A. Waddell, Roxburghshire.

LOWER DIVISION.

PRIZES—1. D. G. Mitchell, Edinburgh; 2. S. F. Stewart, Largs; 3. A. Aitken, Broughty Ferry (*Medallists*); 4. H. Winchester, Burghead; 5. A. Cunnison, Edinburgh; 6. A. B. Robb, Bathgate; 7. A. Milne, Edinburgh; 8. G. Brown, Hawick, and G. Butler, Darlaston—equal; 10. J. T. Kerr, Newcastle-on-Tyne; 11. J. C. Cameron, Edinburgh; C. E. Fawsitt, Glasgow; and D. P. Grubb, Dundee—equal; 14. Miss M. I. Gray, Edinburgh; 15. Miss A. T. Cowe, Penicuik; 16. R. M. Shearer, Edinburgh; 17. T. A. Menzies, Hull; 18. M. S. Ketchin, Mid-Lothian; 19. W. G. Brown, Penicuik, and J. W. Eastham, England—equal.

SECOND-CLASS CERTIFICATES.—21. T. C. Adam, Dunblane, and W. A. Mowat, Bombay—equal; 23. Miss C. M. Ross, Arbroath, and D. Stevens, Bridge of Earn—equal; 25. T. A. L. Cairns,

Portobello, and D. D. Paton, Carnoustie—equal; 27. A. Ross, Ross-shire; 28. J. Gray, Dundee, and J. Tullis, Leuchars—equal; 30. A. C. Murphy, Edinburgh; 31. J. Geddes, Port-Gordon; 32. J. Methven, Kinghorn; 33. J. Colville, London; 34. C. R. Sprague, Edinburgh; 35. A. D. Yule, Arbroath, and G. F. Soutar, Coupar-Angus—equal; 37. J. Pryde, Edinburgh.

PHYSICAL LABORATORY.

Highly Commended—*Summer* 1896.—E. M. Anderson, R. Bell, R. D. Bell, W. C. Douglas, Miss J. C. Macmillan, B.Sc. *Winter* 1896-7.—A. Aitken, A. Bain, G. T. Davidson, J. T. Gilbertson, M. S. Ketchin, J. Lornie, Miss E. W. Menzies, J. Wight.

The Neil Arnott Scholarship is awarded to A. Aitken, the Donald Fraser Bursary to G. T. Davidson, and the Newton Bursary to S. F. Stewart.

P. G. TAIT, M.A., *Professor.*

NATURAL PHILOSOPHY.

INTERMEDIATE HONOURS.

First-Class Honours.—James M. Low, Leith (*Medallist*); Donald Banks, Wigtonshire (Second Attendance); W. D. Proudfoot, Perthshire.

Second-Class Honours.—R. H. Macnair, Isle of Man; James Lornie, East Lothian.

C. G. KNOTT, D.Sc., *Lecturer.*

HISTORY.

SENIOR CLASS.

Class I.—1. John M'Farlane, Prestonkirk (*Medallist*); 2. W. B. Munro, Canada; and John Tait, Shetland—equal. Class II.—4. C. H. Moore, Musselburgh.

JUNIOR CLASS.

Class I.—1. Thomas Paterson, Edinburgh (*Medallist*); 2. G. S. Dickson, Newport-on-Tay; and S. A. K. Wilson, Edinburgh—equal; 4. Malcolm Campbell, Lochgilphead; Miss E. Hooper, Lee, Kent, and W. Husband, Edinburgh—equal. Class II. 7. J. Colville, London; 8. Miss H. Macfie, Whithorn, and J. Winchester, Edinburgh—equal; 10. G. B. Bell, Dundee, H. C. Norman, Winkleigh, Devon, and A. B. Taylor, Inverness—equal; 13. W. H. Meikle, Inverary, and W. A. Mowat, Blackheath, London—equal; 15. E. R. I. Stevenson, Broughty Ferry; 16. W. Pringle, Carluke; 17. P. Campbell, Oban, and D. A. Morrison, Kirkmichael—equal; 19. J. H. Imrie, Edinburgh; 20. A. W. Bain, Musselburgh.

G. W. PROTHERO, D.Litt., *Professor.*

CONSTITUTIONAL HISTORY.

(BRITISH) HONOURS COURSE.

1. John M'Farlane and Donald T. Mackintosh—equal: 3. George Dundas Craig and Miss L. A. Johnstone—equal.

JOHN KIRKPATRICK, M.A., LL.D., *Professor.*

ORDINARY COURSE.

See under Faculty of Law, page 498.

FINE ART.

CLASS MEDAL AND FIRST PRIZE FOR CLASS EXAMINATIONS.—W. Graham Brown.

COUSIN PRIZE FOR ESSAYS.—Henry C. Liddell.

SECOND PRIZE FOR CLASS WORK.—J. Forsyth and J. I. Macnair—equal.

G. BALDWIN BROWN, M.A., *Professor.*

Faculty of Science.

SUMMER SESSION, 1896.

STRUCTURAL AND FIELD GEOLOGY.

HONOURS CERTIFICATES.—1. Campbell Brown, Edinburgh (*Medallist*); 2. William Geddie, Edinburgh; 3. Patrick H. Gillies, Easdale; 4. Herbert Smiles, Paisley; 5. Robert C. S. Keith, Portobello; 6. Edith Hooper, Tenby; 7. Allan M. Douglas, Edinburgh; 8. Henry H. Simpson, Virginia; 9. Rhodes Haygarth, Yorkshire; 10. William G. Porter, Cumbaconum; 11. Ellice M. Horsburgh, Kelso; 12. Donald Menzies, Dunkeld, and James Lornie, Haddingtonshire—equal; 14. Augusta M. C. Davidson, Edinburgh, and J. Spencer Low—equal; 16. George W. Profeit, Aberdeenshire; 17. R. G. Selby, England; 18. James G. Marshall, Edinburgh; 19. A. O. C. Watson, Bombay.

JAMES GEIKIE, D.C.L., LL.D., *Professor.*

PETROLOGY.

HONOURS CERTIFICATES.—1. Campbell Brown, Edinburgh (*Medallist*); 2. James Masson, Edinburgh; 3. James W. Matthewson, Dunfermline; 4. J. Spencer Low, Yorkshire.

JOHN S. FLETT, M.B., B.Sc., *Lecturer.*

PLANT PHYSIOLOGY.

J. A. Gray, Ajmere (*Medallist*); S. F. Ashby, Birkenhead; T. A. Sprague, Edinburgh; W. Mair, Edinburgh; W. G. Porter, Edinburgh; J. Ross, Whitburn; K. N. Knox, Polton.

W. G. SMITH, B.Sc., Ph.D., *Lecturer.*

WINTER SESSION, 1896-97.

APPLIED MATHEMATICS.

Dynamics.

First-Class Honours.—John S. Ker, Roxburghshire.

Second-Class Honours.—W. J. Dilley, Madeira; Peter Drummond, Edinburgh; A. G. G. Cumming, Garmouth.

C. G. KNOTT, D.Sc., *Lecturer.*

GEOLOGY AND MINERALOGY.

Medal.—W. Geddie, Edinburgh.

Honours Certificates.—1. W. Geddie, Edinburgh; 2. Sydney S. Ashby, Birkenhead; 3. L. O. Critchley, M.A., Inverness; 4. W. E. Carnegie Dickson, Edinburgh; 5. John MacLean, Grantown-on-Spey, and A. W. C. Menzies, Scotland—equal; 7. Thos. A. Sprague, Edinburgh; 8. J. H. H. Pirie, Aberdeenshire, and W. G. Porter—equal; 10. E. M. Anderson, Falkirk; 11. George Murray, Caithness; 12. A. B. Taylor, Inverness; 13. Jas. M. Hogge, Edinburgh, and D. Menzies, Dunkeld—equal; 15. Jas. G. Wallace, Boston, U.S.A.; 16. J. Ann, Orkney, and Jas. B. Rodger, Forfar—equal; 18. L. Tweedie Stodart, Tweedsmuir; 19. Wm. Bruce, Kincardine; 20. W. G. Mason, Lancashire; 21. John M'Naughton, Victoria, Australia.

PRACTICAL GEOLOGY AND MINERALOGY.

Medal.—A. W. C. Menzies.

Honours Certificates.—1. A. W. C. Menzies, Scotland; 2. Campbell Brown, Edinburgh; 3. J. H. H. Pirie, Aberdeenshire; 4. L. O. Critchley, M.A., Inverness; 5. A. B. Taylor, Inverness; 6. W. G. Porter, Kumbakorum; 7. E. M. Anderson, Falkirk, and W. E. C. Dickson, Edinburgh—equal; 9. T. A. Sprague, Edinburgh; 10. Edith Hooper, Tenby; 11. D. Menzies, Dunkeld; 12. Augusta Davidson, Scotland. L. Tweedie Stodart was unavoidably absent from one examination, but gained 72 per cent. in two examinations.

Half-Course Qualifying for Arts Degree.—Herbert Smiles, 72 per cent.

JAMES GEIKIE, D.C.L., LL.D., *Professor.*

SYSTEMATIC ENGINEERING.

1. William Blackadder (*Medal and First Prize*); 2. E. M. Horsburgh (*Second Prize*); 3. A. C. Smith (*Third Prize*); 4. P. Drummond; 5. D. Stevens; 6. T. C. Fraser; 7. H. H. Simpson; 8. A. M. Douglas; 9. J. R. Laing.

G. F. ARMSTRONG, M.A., M.Inst., C.E., *Professor.*

GEOMETRICAL AND MECHANICAL DRAWING.

1. William Blackadder (*Medal*); 2. A. Cameron Smith (*Prize*); 3. David Stevens; 4. E. M. Horsburgh; 5. T. C. Fraser; 6. H. H. Simpson; 7. R. W. Macluckie.

W. HUME KERR, M.A., B.Sc., *Lecturer.*

AGRICULTURE AND RURAL ECONOMY.

HONOURS CERTIFICATES.—1. Sydney F. Ashby, Southport (*Senior Medal*); 2. Edward C. Usher, Edinburgh (*Junior Medal*); 3. William Bruce Tullo, Montrose, and John C. Rushton, Staffordshire—equal; 5. Alexander M. M'Intyre, Ross-shire; 6. Daniel Robb, Ayrshire, and Patrick H. Guthrie, Edinburgh—equal; 8. Donald M'Lean, Golspie; 9. J. Elliot-Scott, Cromarty; 10. John Brown, Dalbeattie; 11. James H. Brydon, Galashiels; 12. James Young-Gillespie, Drem.

STEVEN SCHOLARSHIP, of about £75.—William Bruce and John O. Peet—equal.

HIGHLAND SOCIETY PRIZES, £10 in Books.—J. Elliot-Scott, Donald M'Lean, A. M. Macintyre, and John C. Rushton—equal.

ROBERT WALLACE, *Professor.*

AGRICULTURAL CHEMISTRY.

1. Edward Cecil Usher and John O. Peet—equal (*Medallists*); 3. Daniel Robb and John C. Rushton—equal; 5. J. Grant Smith; 6. Chas. E. Legat; 7. Patrick H. Guthrie; 8. D. M'Lean; 9. A. Macintyre.

A. P. AITKEN, D.Sc., *Lecturer.*

AGRICULTURAL ENTOMOLOGY.

1. D. M'Lean (*Medal*); 2. J. C. Rushton; 3. W. G. Mason; 4. J. O. Peet; 5. W. Bruce; 6. J. G. Smith; 7. C. E. Legat; 8. P. H. Guthrie.

W. FREAM, LL.D., B.Sc., *Lecturer.*

FORESTRY.

1. Mr John O. Peet, Lancashire, and Mr Philip A. Salomons, Edinburgh—equal (*Medals and Prizes*); 3. Mr Patrick H. Guthrie, Liberton (*Prize*); 4. Mr Charles E. Legat, Musselburgh; 5. Mr Donald M'Lean, Loftus-in-Cleveland; 6. Mr Samuel Milligan, Thornhill, Dumfries, and Mr William G. Mason, Lancashire—equal; 8. Mr John Leslie, Aberdeen.

FRED. BAILEY, *Lecturer.*

Faculty of Divinity.

WINTER SESSION, 1896-97.

DIVINITY.

THIRD YEAR.

PRIZEMEN.—1. James Wallace, M.A. ; 2. James L. Buchanan, B.A. ; 3. Andrew Mutch, M.A. ; 4. James Rae Murdoch.

SECOND YEAR.

PRIZEMEN.—1. Alexander M. Gordon, M.A. ; 2. Alexander W. Mitchell, M.A.

HONOURABLE MENTION.—Alexander C. Buchanan, B.A., and D. Denholm Fraser, M.A.

FIRST YEAR.

PRIZEMEN.—1. James M'Culla, M.A. ; 2. George D. Shepherd, M.A. ; 3. W. C. Morton, B.A. ; 4. J. B. Baillie, M.A.

HONOURABLE MENTION.—1. D. E. Morell, M.A. ; 2. James Mathers, B.A., and Frank H. Martin, B.A.—equal.

R. FLINT, D.D., *Professor.*

BIBLICAL CRITICISM AND BIBLICAL ANTIQUITIES.

WRITTEN EXAMINATIONS.—1. James L. Buchanan, County Down (*Medallist*) ; 2. James Wallace, Mid-Lothian ; 3. D. Denholm Fraser, Perthshire ; 4. Alexander C. Buchanan, County Down ; 5. Andrew Mutch, Clackmannan, and John Wallace, Ayrshire—equal ; 7. Charles G. Mackenzie.

HONOURABLE MENTION.—Frank H. Martin, A. W. Mitchell, Murray W. Corson, and David E. Morell.

ESSAYS.—1. Alexander C. Buchanan ; 2. James L. Buchanan and James Wallace—equal.

HONOURABLE MENTION.—James Rae Murdoch and A. W. Mitchell.

A. H. CHARTERIS, D.D., *Professor.*

ECCLESIASTICAL HISTORY.

PRIZEMEN.—1. James Wallace, M.A., Cramond (*Medallist*) ; 2. James L. Buchanan, B.A., County Down ; 3. George D. Shepherd, M.A., Ecclesmachan ; 4. Andrew Mutch, M.A., Tillicoultry.

HONOURABLE MENTION.—Frank H. Martin, B.A., Dungannon.

M. C. TAYLOR, D.D., *Professor.*

HEBREW AND SEMITIC LANGUAGES.

SENIOR HEBREW—FIRST DIVISION.

PRIZEMAN AND MEDALLIST.—Alexander M. Gordon, M.A., Halifax, Nova Scotia.

SECOND DIVISION.

PRIZEMEN.—1. D. Denholm Fraser, M.A., Blair Athole (*Medallist*); 2. Alexander C. Buchanan, B.A., County Down.

HONOURABLE MENTION.—3. William S. Simpson, M.A., Leslie; 4. Alexander Grant, M.A., Edinburgh—equal.

JUNIOR HEBREW.

PRIZEMEN.—1. Samuel S. Sanderson, M.A., Edinburgh (*Medallist*), and A. R. Yeoman, Lincolnshire (*Medallist*)—equal; 3. John Chalmers, M.A., Bathgate.

HONOURABLE MENTION.—4. C. G. Mackenzie, M.A., Aboyne; 5. Frank H. Martin, B.A., Dungannan, Ireland; 6. George M'Dougall, M.A., Dumfriesshire, and George D. Shepherd, M.A., Ecclesmachan; 8. Gavin Millar, M.A., Stonehouse.

JUNIOR SYRIAC.

PRIZEMEN.—1. J. Rudolff Hugo, B.A., Cape Colony; 2. A. R. Yeoman, M.A., Lincolnshire.

ARCHD. R. S. KENNEDY, D.D., *Professor.*

Faculty of Law.

SUMMER SESSION, 1896.

CIVIL LAW.

PRIZEMEN.—1. J. A. Inglis, B.A. Oxon. (*Muirhead Prize*); 2. D. Robertson; 3. M. N. MacInnes, M.A. (Edin.).

HONOURS.—4. E. F. Gibson; 5. G. Crurie Steuart; 6. J. B. Ballingall, M.A. (St Andrs.); 7. O. F. Lumsden, M.A. (Edin.); 8. D. Smith Clark, D. Connell, and J. M. Macmillan, M.A. (Edin.)—equal; 11. D. A. Miln.

A *special prize* was awarded to C. C. Watson, who was second in the two Examinations at which he was present.

JAMES MACKINTOSH, B.A., *Professor.*

SCOTS LAW.

1. Robert D. Phillip, Forfarshire; 2. A. W. Buglass, West Lothian; 3. M. S. Shaw, Perthshire; 4. Christopher Johnston Bisset, Forfarshire—*Prizemen;* 5. David Porter, Forfarshire; 6. Thomas Hart, M.A., Mid-Lothian; 7. James Shields, Mid-Lothian; 8. David Ogilvy Young, Perthshire; 9. Robert W. Smart, Perthshire; 10. Thomas Philp, Forfarshire; 11. William Brotherston, jun., Mid-Lothian, and Robert D. Gray, Lanarkshire—equal; 13. Peter A. MacBrayne, Renfrewshire; 14. James Macdonald,

Argyllshire; 15. Roderick Mackenzie, Ross-shire; 16. William Grieve, Forfarshire; 17. A. Burns Petrie, Forfarshire; 18. R. Montgomerie Samson, Ayrshire; 19. Charles Anderson, Aberdeenshire; 20. A. H. Milne, Morayshire; 21. David Paterson, Dumfriesshire; 22. Andrew D. Crichton, Forfarshire.

ESSAY PRIZES.—1. Ernest T. Skae, Stirlingshire; 2. Robert D. Phillip; 3. R. Macgregor Mitchell, Perthshire.

JOHN RANKINE, M.A., LL.D., *Professor.*

MEDICAL JURISPRUDENCE.

FIRST-CLASS HONOURS.—1. Alexander Neil (*Medallist*); 2. John Smart; 3. A. Macgregor Meldrum.

SECOND-CLASS HONOURS.—4. D. Maclean; 5. John A. Inglis; 6. J. B. Ballingall; 7. D. A. Miln; 8. A. A. Fraser; 9. D. T. Stewart; 10. J. J. Maclean; 11. J. Scott Gardner; 12. G. C. Rankin; 13. Charles A. Macpherson.

DOUGLAS MACLAGAN, Kt., M.D., *Professor.*

INTERNATIONAL PRIVATE LAW.

1. William Burt, Dunfermline (*Class Prize*); 2. David Robertson, Stranraer; 3. John Smart, Edinburgh, and John A. Inglis, Worcester—equal; 5. Robert C. Henderson, Edinburgh.

G. WARDLAW BURNET, M.A., B.L., *Lecturer.*

WINTER SESSION, 1896-97.

PUBLIC LAW.

PRIZEMEN.—1. Malcolm N. MacInnes, W. Bennett Munro, and David Robertson—equal; 4. S. Swaminadhan.

HONOURS.—5. A. P. Thoms; 6. B. K. Acharyya, R. Sterling Craig, T. Hart, and J. A. Kyd—equal; 10. J. Harrower Guild; 11. S. K. G. Kerr and Alex. Steedman—equal.

ESSAY PRIZE.—1. W. Bennett Munro; 2. J. A. Kyd.

L. J. GRANT, Bart., B.A., *Professor.*

CIVIL LAW.

1. D. T. Stewart; 2. W. H. Fraser; 3. A. P. Thoms, M.A., St And. (*Prizemen*).

HONOURS.—4. R. L. Proudfoot, M.A., St And., and A. W. Russell —equal; 6. S. Swaminadhan, B.A., Madras; 7. James Mitchell, M.A., St And.; 8. James Watt; 9. J. W. D. Kirkland.

The Forensic Prize for 1895-96 (Students of last Session) was awarded to J. A. Inglis.

JAMES MACKINTOSH, B.A., *Professor.*

CONSTITUTIONAL LAW AND HISTORY.

1. Alexander B. Robb; 2. William H. Fraser; 3. Mackenzie S. Shaw—these three nearly equal; 4. S. Swaminadhan, M.A., and Alfred P. Thom. M.A.—equal; 6. Alexander A. Fraser, Alexander MacEwan, and David T. Stewart—equal; 9. William C. A. Ross.

HONOURABLE MENTION FOR GENERAL EXCELLENCE OF WORK.—W. H. Fraser and A. P. Thoms.

J. KIRKPATRICK, M.A., LL.D., *Professor.*

SCOTS LAW.

1. William Burt, M.A., Fife; 2. Alexander M. Cook, Fife; 3. Malcolm N. MacInnes, M.A., Inverness-shire; 4. William A. Jolly, Midlothian; 5. Thomas S. Welsh, Midlothian; 6. John A. Inglis, B.A., Oxon, Worcester; 7. Robert Gray, Midlothian; 8. James M'Laren, Forfarshire (*Prizemen*); 9. William P. Martin, Forfarshire; 10. John Malcolm, Perthshire; 11. D. A. Miln, New South Wales; 12. W. S. Storie, Roxburghshire; 13. Edward F. Gibson, Midlothian; 14. David Davidson, Forfarshire; 15. W. H. Hamilton, Midlothian; 16. James Davidson, Berwickshire; 17. John Henderson, jun., Dumfriesshire; 18. F. G. Watson, Dumfriesshire; 19. Clement M. Scott, Forfarshire; 20. Richard Davidson, Roxburghshire; 21. J. Mackay Smith, Midlothian; 22. William Brown, Midlothian; 23. R. G. Brown, Midlothian; 24. Peter Manson, Orkney; 25. Frank Rutherford, Selkirkshire.

JOHN RANKINE, M.A., LL.D., *Professor.*

CONVEYANCING.

1. Robert M'Neil, Dumfries; 2. Christopher J. Bisset, Forfar; 3. Donald M'Laren, Perth; 4. Robert D. Philip, Forfar; 5. David O. Young, Perth; 6. A. G. Reid, Bute; 7. Ernest T. Skae, Stirling; and 8. David Porter, Forfar (*Prizemen*); 9. C. B. Anderson, Forfar; 10. Andrew D. Crichton, Forfar; William Grieve, Forfar; and H. D. M'Lellan, Stirling—equal; 13. Henry Anderson, Edinburgh, and David Fenton, Perth—equal; 15. Peter A. MacBrayne, Renfrew; 16. Peter Ross, Edinburgh; James Shields, Edinburgh; and William Brotherston, Edinburgh—equal; 19. R. L. Robertson, Forfar; 20. R. W. Smart, Perth; 21. Robert Campbell, Perth; 22. R. D. Gray, Lanark; 23. Henry Spiers, Berwick, and F. W. Kay, Aberdeen—equal; 25. John S. Bayne, Edinburgh; 26. Roderick Mackenzie, Ross; 27. Forbes T. Wallace, Fife, and H. L. Warden, Edinburgh—equal; 29. A. F. Fraser, Lanark, and David Paterson, Dumfries—equal; 31. Joseph J. Dobbie, Perth, and Thomas Philp, Forfar—equal; 33. David Anderson, Banff; 34. J. C. Fraser,

Edinburgh; 35. R. N. Ramsay, Renfrew; 36. William Macmeikan, Edinburgh; 37. James Macdonald, Argyll; 38. J. T. Douglas, Dumfries, and John Irving, Dumfries—equal; 40. Norris Mackay, Moray; 41. Richard Rusk, Wigtown; 42. Harry V. Neill, Fife; 43. David T. Winchester, Sydney, N.S.W.

J. P. WOOD, W.S., *Professor.*

PROCEDURE AND EVIDENCE.

1. Alexander Macfarlane, Port-Glasgow (*Prize*); 2. William Burt, M.A., Dunfermline.

J. J. COOK, M.A., LL.B., *Lecturer.*

Faculty of Medicine.

SUMMER SESSION, 1896.

BOTANY.

First-Class Honours.—1. John Leslie, Aberdeen; 2. G. S. Carmichael, Edinburgh; 3. O. Charnock Bradley, Lancashire; 4. James G. S. Jamieson, Ayr, and L. C. Peel Ritchie, Edinburgh—equal (*Medallists*); 6. W. E. Carnegie Dickson, Edinburgh; Kenneth N. Knox, Polton; and J. Lothian, Duns—equal; 9. John W. Eastham, Lancashire.

Second-Class Honours.—10. Matthew A. Swan, Paisley, and Peter Murray, Elgin, Morayshire—equal; 12. J. Keith A. Robertson, Greenock; 13. D. Heron, County Down, Ireland; W. E. M'Farlane, South Seas; and Norman Patterson, Ancrum—equal; 16. Robert Affleck, Scotland, and Arthur Spencer, Montrose—equal; 18. Angus M'Nab, New Zealand; 19. J. Gordon M'Dougall, Scotland; 20. Arthur M. Wood, Leith, and Aleck Trotter, Perth—equal; 22. Edward B. Jamieson, Shetland, and Norman S. Wells, Moulmein—equal; 24. Alexander C. Begg, New Zealand; J. B. Milne, Montrose; and James Munro, Dornoch—equal; 27. Robert W. Buchanan, Edinburgh; Michael W. Robertson, Edinburgh; and Andrew Ross, Ross-shire—equal; 30. A. Branfort Black, Madras; Arthur L. Gurney, Jersey; and Dundas S. MacKnight, Whitburn—equal; 33. J. P. Fleming, Oregon, U.S.A., and J. Ollerton Peet, Lancashire—equal; 35. V. C. de Boinville, Westmoreland; W. Malherbe, Cape Colony; and Walter S. Patton, India—equal; 38. Wm. S. Scott, Selkirk; and Garnett Wright, Whitehaven—equal; 40. Charles Douglas, Lockerbie; and J. G. M'Kenna, Dumfries—equal; 42. S. G. Peill, Madagascar; John B. Primmer, Dunfermline; and G. C. Irvine Robertson, Clackmannan—equal; 45. Hugh Charles Sampson, India; and S.

Ramsay Sibbald, Lockerbie—equal; 47. David Ewart, New Zealand; 48. V. M. Fergusson, Surrey; Alex. Frew, Ayrshire; W. E. Frost, Limerick; and James S. Geikie, Perth—equal; 52. Edwin G. H. Mackenzie, Ballachulish.

PRACTICAL BOTANY.

Class A.

First-Class Honours.—1. G. S. Carmichael, Edinburgh; Andrew Ross, Ross-shire—equal (*Medallists*); 3. James P. Fleming, Oregon, U.S.A., and M. A. Swan, Paisley—equal.

Second-Class Honours.—5. J. Munro Dupont, London; 6. Norman Patterson, Ancrum; 7. William Bruce, Forfarshire; G. F. Buist, St Andrews; and Arthur D. Spence, Montrose—equal; 10. Kenneth N. Knox, Polton; J. Gordon M'Dougall, Montrose; and A. Trotter, Perth—equal.

Class B.

First-Class Honours.—1. Angus M'Nab, New Zealand; 2. W. E. Carnegie-Dickson, Edinburgh; and L. C. Peel Ritchie, Edinburgh—equal (*Medallists*); 4. J. W. Eastham, Lancashire; and J. G. S. Jamieson, Ayr—equal.

Second-Class Honours.—6. H. L. Spark, Forfar; and Garnett Wright, Whitehaven—equal; S. R. W. Buchanan, Edinburgh; 9. G. C. Irvine Robertson, Aberdeen; 10. S. G. Peill, Madagascar; 11. H. C. Sampson, India; and P. Weatherbe, Nova Scotia—equal.

FOR DRAWINGS ILLUSTRATING WORK DONE DURING THE SESSION.

First-Class Honours.—1. Hugh M. Speirs, Haltwhistle; 2. L. C. Peel Ritchie, Edinburgh; and C. W. V. Rutherford, Roxburghshire—equal (*Prizes*); 4. Hardwick Thornley, Workington; and E. M. G. Jayne, Oxford—equal.

Second-Class Honours.—6. David Ewart, New Zealand; 7. Harry L. Spark, Forfar.

FOR MICROSCOPICAL PREPARATIONS MADE DURING THE SESSION.

First-Class Honours.—1. J. Lothian, Duns; 2. W. E. Carnegie-Dickson, Edinburgh; and Harry L. Spark, Forfar—equal; 4. L. C. Peel Ritchie, Edinburgh (*Prizes*); 5. A. L. Gurney, Jersey; and D. Heron, County Down, Ireland—equal; 7. Kenneth N. Knox, Polton.

Second-Class Honours.—8. Hugh C. Sampson, India; 9. William Bruce, Scotland; and J. Keith Robertson, Greenock—equal.

ISAAC BAYLEY BALFOUR, M.D., D.Sc., *Professor.*

ZOOLOGY.

First-Class Honours.—1. O. Charnock Bradley; 2. Mathew A. Swan, and Norman S. Wells—equal (*Medallists*); 4. Ahmed Nisar; 5. G. H. Hanna.

Second-Class Honours.—6. H. J. Hoile; 7. A. C. Begg, and John Ross—equal; 9. R. V. Clark, and A. M. Wood—equal; 11. Aleck Trotter; 12. G. C. I. Robertson, and G. Wright—equal; 14. J. H. Cattanach, D. S. MacKnight, and N. Patterson—equal; 17. Wm. Dunbar, W. E. Frost, and H. C. Sampson—equal; 20. J. M. Morrison, and Andrew Ross—equal; 22. J. W. Duffus, and F. K. Kerr—equal.

J. BEARD, D.Sc., *Lecturer.*

PRACTICAL ZOOLOGY.

First-Class Honours.—1. G. H. Hanna; 2. W. E. Frost (*Medallists*); 3. F. K. Kerr; 4. A. M. Wood; 5. W. Eadie; 6. W. Brown and G. C. I. Robertson—equal.

Second-Class Honours.—8. J. L. Rentoul; 9. A. C. Begg; 10. S. M. D. Campbell; 11. W. P. Cormack, and J. H. M'Kee—equal; 13. N. Patterson; 14. H. J. Hoile; 15. John Ross, and N. S. Wells—equal; 17. H. C. Sampson; 18. S. L. Dawkins, J. H. Duffus, and C. Balfour Paul—equal; 21. R. V. Clark, and A. Gavin—equal; 23. D. MacKnight.

J. C. EWART, M.D., *Professor.*

PRACTICAL CHEMISTRY.

First-Class Honours.—1. J. L. Rentoul, Co. Down (*Medallist*); 2. Arthur Martin, Antrim; 3. M. C. Beatty, Co. Down; 4. Wm. Jeffrey, Blayden-on-Tyne; 5. A. M'Ewan, Edinburgh; 6. Evan Macmillan, Edinburgh.

Second-Class Honours.—7. Frank E. Belcombe, Edinburgh; 8. T. H. Bishop, London.

ALEX. CRUM BROWN, M.D., *Professor.*

PHYSICS.

First-Class Honours.—1. G. S. Carmichael; 2. D. Heron; 3. J. K. A. Robertson; 4. J. Munro (*Medallists*); 5. L. C. Peel Ritchie; 6. R. Affleck; 7. P. Murray; 8. J. G. S. Jamieson; 9. D. Ewart, R. G. Hunter, and J. G. Macdougall—equal; 12. E. B. Jamieson; 13. A. W. Nankervis.

Second-Class Honours.—14. S. G. Peill; 15. W. A. Cowan; 16. A. O. C. Watson; 17. A. A. Fraser; 18. J. B. Milne and M. W. Robertson—equal; 20. A. D. Spence; 21. A. Fleming; 22. J. G. Mackenna; 23. St L. H. Gribben; 24. W. Ewart; 25. N. S. Wells, and G. D. Whyte—equal; 27. W. S. Patton;

28. E. G. H. Mackenzie; 29. A. L. Gurney; 30. V. C. de Boinville, and J. H. Thornley—equal; 32. G. C. Burgess and W. E. Macfarlane—equal.

P. G. TAIT, M.A., *Professor.*

PRACTICAL ANATOMY.

SENIOR.

FIRST-CLASS HONOURS.—1. Robert Cameron, Crieff; Clarence King, British Guiana; William Tarr, Somerset; and L. Maclagan Wedderburn, Forfar—equal (*Medallists*); 5. A. Cassels Brown, Cheshire; Charles Chilton, D.Sc., New Zealand; R. M. Rowe, Edinburgh; and W. J. Stuart, M.A., Edinburgh—equal; 9. G. G. Hay, Abernethy; 10. J. A. Black, Rostock; 11. H. W. Boreham, London, and A. B. George, Montrose—equal; 13. H. G. Carlisle, Liverpool, and W. H. Dawson, New Zealand—equal; 15. L. D. Parsons, Madras; 16. W. J. Nutter, and A. de St L. F. Perigal, Oxford—equal; 18. Thomas Livingstone, Durham; J. F. Martin, Limerick; and R. A. Macneill—equal; 21. D. V. M. Adams; W. F. Godfrey, Edinburgh; William Macniven, Inverness-shire; and A. H. Thomson, Lancashire—equal; 25. D. A. Callender, Edinburgh; Joseph Hunter, Dumfriesshire; A. W. Limont; and F. E. Robinson, Woolwich—equal; 29. J. M. Gray, Perthshire, and G. H. W. Robertson, Edinburgh—equal; 31. George Haddow, Falkirk, and H. G. P. Raeburn, Leith—equal; 33. A. F. Fraser, Inverness, and Alexander Mouat, Haddington—equal; 35. James Leggate, and W. C. Spooner, Blandford, Dorset—equal; 37. C. H. G. Gard, Inverness, and Patrick Leighton, Edinburgh—equal; 39. F. J. H. Bateman, Norwich, and Andrew M'Kaig, Belfast—equal; 41. E. G. Ffrench.

SECOND-CLASS HONOURS—42. W. W. Maxwell, Newcastle-on-Tyne; 43. G. F. B. Simpson, Edinburgh; 44. W. J. Baird, Buckinghamshire; 45. J. M. Benson, Sheffield; 46. Hugh Faulkner, France.

JUNIOR.

FIRST-CLASS HONOURS.—1. J. G. Munro, Caithness; H. J. M'Lean, New Zealand; Sutherland Simpson, B.Sc., Orkney; and G. H. Hanna, Jamaica (*Medallists*); 5. A. A. Martin, New Zealand; 6. James Miller, Edinburgh, and Arthur Preston, Yorkshire—equal; 8. S. A. Ballantyne, Lanarkshire; Yoshinobu Fukuda, Japan; J. G. Jack, Edinburgh; William Park, Orkney; and T. Grainger Stewart, Edinburgh—equal; 13. Harvey Baird, Perth; 14. W. J. D. Bromley, Lancaster; Langworthy Laurie, Worcester; F. D. Simpson, Bathgate; and William Wallace, Berwick-on-Tweed—equal; 18. L. C. Peel Ritchie, Edinburgh, and Angus Whyte, Easdale—equal; 20. Andrew Hunter, Edin-

burgh, and T. C. Mackenzie, Swatow, China—equal ; 22. John Craig, Edinburgh ; B. K. Goldsmith, Isle of Man ; and F. C. Matthew, Corstorphine—equal ; 25. T. H. W. Alexander, Perth, and Ewen Cameron, Lincolnshire—equal ; 27. George Maclennan, Ross-shire ; 28. I. K. Hermon, Montrose.

SECOND-CLASS HONOURS.—29. T. A. Mackenzie, Edinburgh.

WM. TURNER, Kt., M.B., D.C.L., *Professor.*

PRACTICAL PHYSIOLOGY.

FIRST-CLASS HONOURS.—1. Charles Chilton, D.Sc., New Zealand, and J. D. Comrie, M.A., Edinburgh—equal ; 3. G. Thomson, Edinburgh ; 4. W. J. Barclay, New Zealand (*Medallists*) ; 5. T. H. W. Alexander, Perth ; 6. G. A. Davidson, Wigtownshire ; 7. G. M'Lennan, Ross-shire, and Angus M'Nab, New Zealand—equal ; 9. E. M'K. Young, Kinross ; 10. D. Ewart, New Zealand, and W. Wallace, Berwick-on-Tweed—equal ; 12. B. K. Goldsmith, Isle of Man, and R. A. Ross, Cape Colony—equal.

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W. RUTHERFORD, M.D., *Professor.*

PRACTICAL MATERIA MEDICA.

FIRST-CLASS HONOURS.—1. Y. A. Djedjizian, Asia Minor ; 2. John Pender, Dumfriesshire, and Sutherland Simpson, Orkney—equal

(*Medallists*); 4. Charles H. J. Watson, Cape Colony; 5. George Thomson, Edinburgh.

Second-Class Honours.—6. George Grey Hay, Abernethy, and Thomas Livingstone, Stanhope—equal; 8. George H. Brown, India; 9. William J. Barclay, New Zealand; James Husband, Edinburgh; James Masson, Edinburgh; and A. S. M. Peebles, Coatbridge—equal; 13. Robert M. Rowe, Edinburgh; 14. George Laing, Northumberland; William Park, Orkney; and E. M'Killop Young, Kinross—equal; 17. George A. Davidson, Wigtownshire, and William James Stuart, Edinburgh—equal; 19. Henry Carlisle, Liverpool; 20. John Anderson, Dollar, and James Ramsay Munro, Norwich—equal; 22. James J. Galbraith, Inverness; John G. Jack, Edinburgh; and W. M. Mackay, Durham—equal; 25. David Ewart, New Zealand; James Millar, Edinburgh; and E. S. Whytock, Scotland—equal; 28. Andrew Cassels Brown, Cheshire, and Alexander K. Smith-Shand, Aberdeen—equal; 30. Arthur W. Nankervis, Melbourne; 31. William Ewart, New Zealand; Langworthy Laurie, Worcester; Alexander Mouat, Haddington; and James Orr, Hawick—equal; 35. William Reid, M.A., Montrose; 36. John Jeffrey, Jedburgh; Arthur Preston, Yorkshire; and Robert Ritchie, Edinburgh—equal; 39. William J. D. Bromley, Lancaster; Robert D. Hudson, Hyderabad; George C. M'Leavy, Ireland; David B. Merry, Edinburgh; M. Cadivor Morgan, Dowlais, S. Wales; John G. Munro, Thurso; Robert B. Turnbull, Ross-shire; and Angus Whyte, Easdale—equal.

THOMAS R. FRASER, M.D., *Professor.*

PRACTICAL PATHOLOGY.

First-Class Honours.—1. Alfred T. Gailleton, Perth; 2. J. M. Cuthbert, Scotland; 3. John W. Mackenzie, Inverness-shire (*Medallists*); 4. James R. Anderson, Orkney, and Alfred C. Sandstein, New Zealand—equal; 6. R. F. M'Nair Scott, Singapore, and Henry Wade, Falkirk—equal; 8. H. T. Holland, Durham; 9. C. S. Brebner, Darlington; 10. James Allison, Lanarkshire; John Cameron, Laurencekirk; J. H. Rhodes, Kendal; and Ward Smith, Leek—equal; 14. J. M. Reid, Edinburgh; 15. W. B. Barker, Newburgh-on-Tay; Alexander Goodall, Ayrshire; W. M. Paul, Dollar; H. H. Roberts, Wales; and David Wardrop, Greenock—equal; 20. Robert Cumming, Montrose; George Dick, Caithness; C. Horsford, West Indies; C. M. Pearson, Edinburgh; and D. B. Waters, Wick—equal; 25. R. J. Dick, Dunbar; 26. D. Forbes, Perth; 27. Alfred Shearer, Orkney; 28. George A. Rorie, Dundee.

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32. W. Craig, Kelso; 33. R. N. Brebner, Canada; Andrew Gilmour, Edinburgh; Albert A. Gunn, Strathpeffer; and William M'Kay, New Zealand—equal; 37. H. E. Gibbs, New Zealand, and W. J. Jones, Wales—equal; 39. A. Dingwall-Fordyce, Edinburgh, and G. de Labat, Cape Colony—equal; 41. D. G. Hughes, North Wales, and G. F. B. Simpson, Edinburgh—equal; 43. Ernest W. Lewis; 44. J. M. Bowie, Edinburgh; R. Bruce, Edinburgh, and A. Hamilton Wood, Falkland—equal; 47. J. Aird, Lockerbie, and Græme Hamilton, Ashton-under-Lyne—equal; 49. A. M'Watt Green, Skye, and E. C. G. Maddock, Canada—equal; 51. Stanley Branch, West Indies, and Thomas E. Hincks, England—equal; 53. A. L. Buchanan, Yorkshire; R. R. M'Nicol, Inverness; A. B. Shed, Fouldon; and W. E. Tellet, Bridge of Allan—equal; 57. Robert Pugh, North Wales; 58. W. Lockerbie, Edinburgh; 59. Edmund R. Branch, West Indies; T. R. Matthews, Jamaica; E. M'Culloch, Joppa; James W. Mathewson, Dunfermline; and R. C. Verley, Jamaica—equal; 64. F. B. Bester, South Africa, and B. S. Hyslop, Leven—equal; 66. A. G. Hamilton, Chester; Hugh M'Calman, Tarbert; and D. V. M'Intyre, Dundee—equal; 69. W. G. Nutter; 70. R. Crawford, Bradford; D. D. Farquharson, Argyleshire; and E. G. Ffrench, Jamaica—equal; 71. D. V. M. Adams, Lanark; 72. L. D. Parsons, B.A., Madras.

IN TWO EXAMINATIONS.

SECOND-CLASS HONOURS.—W. P. Meldrum, Mauritius; A. K. Traill, India; C. Forsyth, Edinburgh.

W. S. GREENFIELD, M.D., *Professor.*

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FIRST-CLASS HONOURS. — 1. Percy T. Herring, New Zealand (*Medallist*); 2. Lewis Grant, M.A., Scotland; 3. W. H. Goldie, New Zealand; 4. T. M. Callender, Scotland, 5. W. S. Ballantyne, B.Sc., Scotland; 6. Henry Young Taylor, Scotland.

SECOND-CLASS HONOURS.—7. J. A. Hunter, Ireland; 8. A. G. Carment, India.

A. R. SIMPSON, M.D., *Professor.*

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DOUGLAS MACLAGAN, Kt., M.D., *Professor.*

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First-Class Honours.—1. Ian L. M'Innes; 2. H. S. Ballantyne, B.Sc., and F. W. More—equal (*Medallists*); 4. G. Liddell; 5. Wm. C. W. M'Dowall, M.B., C.M., and John C. Nixon—equal; 7. W. F. Harvey; 8. C. P. B. Wall; 9. P. Kinmont; 10. Wm. Hope Fowler; 11. G. B. Hollings; 12. D. N. Anderson and A. B. M'Carthy—equal; 14. A. Hamilton Wood; 15. L. W. Davies.

T. S. CLOUSTON, M.D., *Lecturer.*

DISEASES OF THE EYE.

1. C. M. Cooper and W. R. Somerset—equal (*Medals and Prizes*); 3. F. W. More; 4. Wm. Hope Fowler (*Prizes*); 5. William Burns; 6. Edwin Mathew; 7. G. Liddell and Ian L. M'Innes—equal; 9. Robert Selby; 10. William Hamilton; 11. E. F. M. Neave and Henry Hugh Roberts—equal; 13. T. Bigham and W. M. F. Smith—equal; 15. Leonard Boyer.

Second-Class Honours.—16. W. Carlyle Wilson and John Malcolm—equal; 18. Geo. Gatenby and J. W. Struthers—equal; 20. J. S. Fraser; 21. E. P. Baumann; 22. T. J. F. M'Hattie;

23. G. Vincent; 24. D. N. Anderson and W. M'Kenzie Wilson —equal; 26. G. B. Hollings; 27. W. Maitland Martin; 28. A. B. MacCarthy; 29. David Wardrop; 30. B. O. R. Aldren; 31. "Symblepharon"; 32. W. G. Heath.

GEORGE A. BERRY, M.B., *Lecturer.*

WINTER SESSION, 1896-97.

CHEMISTRY.

ROBERT WILSON MEMORIAL PRIZE.—John W. Eastham, Lancashire. *Proxime Accessit.*—David Drysdale, Edinburgh.

FIRST-CLASS HONOURS.—1. W. H. Dickinson, Durham; 2. David Drysdale, Edinburgh; and Donald Menzies, Dunkeld—equal; 4. Henry Herd, Leith; 5. Robert D. Bell, Edinburgh; John W. Eastham, Lancashire; Samuel Gray; and Andrew C. Keay, Dunkeld—equal (*Medallists*); 9. David M. Johnstone, Edinburgh; William Miller, Edinburgh; G. Stewart Murray, Bo'ness; and T. B. Shaw, County Down—equal; 13. Harry L. Spark, Forfar; 14. C. W. Saleeby, Edinburgh; and R. L. Wilson, Argyll—equal; 16. R. V. Clark, Edinburgh; 17. James Halliday, Dumfries; and Ralph Marshall—equal; 19. T. F. Cavanagh; 20. Peter Murray, Elgin; 21. A. L. Gurney; 22. W. Bruce, Montrose; and S. G. Peill, Madagascar—equal; 24. Kenneth D. Blaikie, Edinburgh; 25. James L. Duncan; and David P. Grubb, Dundee—equal; 27. R. A. Belilios, London; R. W. Buchanan; and Lawrence L. Pole, Edinburgh—equal; 30. John M'Kenzie, Edinburgh; and James Woods, Belfast—equal; 32. D. Inglis Brownlie, Fife; and John R. Edward, Musselburgh—equal; 34. J. P. P. Inglis; A. F. G. Masson, Mauritius; G. R. Mill; A. M'Gregor Sharp, Galashiels; D. Sutherland, Edinburgh; C. E. Watts; and F. E. Wilson, Edinburgh—equal.

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PRACTICAL CHEMISTRY.

First-Class Honours.—1. Robert D. Bell, Edinburgh; 2. David Drysdale, Edinburgh; and George Stewart Murray, Bo'ness—equal; 4. David P. Grubb, Dundee; and Charles C. Wilson, Stirling—equal (*Medallists*); 6. John Mackenzie, Edinburgh; C. W. Saleeby, Edinburgh; and Harry L. Spark, Forfar—equal; 9. R. V. Clark, Edinburgh; and William Miller, Edinburgh—equal; 11. George Pereira, Trinidad; J. G. Wallace, Arbroath; C. E. Watts, Dewsbury; and James Woods, Belfast—equal: 15. D. M. Callender, Edinburgh; 16. Samuel Lyle, Ireland; and Hugh C. Sampson, Bedford—equal; 18. Lawrence W. Pole, Edinburgh; and A. G. Waugh, Stirlingshire—equal; 20. T. Brown Shaw, County Down; 21. W. H. Dickinson, Durham; A. F. G. Masson, Mauritius; and A. S. Millard, Costock, Notts—equal; 24. John Dalgliesh, British Guiana; and S. G. Peill, Madagascar—equal; 26. Allan Ferguson; Stephen Garvin, Ireland; A. L. Gurney, Manitoba; Peter Murray, Elgin; G. C. I. Robertson, Clack-

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Second-Class Honours.—70. S. Brett; and G. W. R. Skeen, Ceylon —equal; 72. J. F. Allan, Strathspey; M. F. Anderson, Edinburgh; and James L. Duncan—equal; 75. W. H. Elder, Bickley; and T. B. Paterson, M.A., Edinburgh—equal; 77. H. St J. Randell, Cape Colony; 78. R. J. Bradley; and T. M. Carson, Larne—equal; 80. Frank L. Atkinson, Manchester; C. W. C. Crooke; and D. E. S. Park, Durham—equal; 83. John F. Haegert; Rudolph Hansen; Robert J. Horne, Edinburgh; E. W. Lewis, Madras; J. G. M'Bride, Edinburgh; and A. Ransome Wallis, Epsom—equal; 89. Charles Douglas, Lockerbie; R. Ashleigh Glegg, Edinburgh; and George R. Mill, Arbroath—equal; 92. A. R. Hallam, Sheffield; Neil F. MacHardy, Argyleshire; and D. W. Standley, Mauritius—equal; 95. O. I. Evans, Wales; R. A. J. Harper, Mid-Lothian; James R. Lindsay; J. G. M'Caughey, Antrim; Carl T. Möller; Walter S. Patton, Hyderabad; and Philip S. Tillard, Kent—equal; 102. David G. MacLaren, Edinburgh; 103. William Eggeling, Edinburgh; 104. E. T. Potts, England; 105. F. Lindsay Rigby, Preston; and David Young, Edinburgh—equal; 107. S. W. M'Clean, Monaghan; J. Frazer Orr, Hawick; Edgar P. B. Phillips; and Morton W. Smart, Edinburgh—equal; 111. Edgar Jones, Llanelly; K. D. C. MacRae, Edinburgh; Robert Murray, Kelso; P. Shaw, Australia; and T. W. Stewart, Thurso—equal; 116. E. Elmslie Brown, Edinburgh; William J. Crow, Edinburgh; D. S. M. Izatt; and Robert Morison, India—equal; 120. R. V. C. Ash, Natal; Robert Buchanan; and R. J. M'Clelland—equal; 123. M. H. Graham;

and A. W. Hauman, South Africa—equal ; 125. Robert H. Martin, Newry ; and L. Rundall, Ealing—equal ; 127. A. W. Atkinson ; J. G. Gilbertson ; Alexander Grant, Banffshire ; L. T. M'Clintock, Shropshire ; Charles M'Donald, Leith ; George M'Neill ; J. L. Palmer, Dublin ; and J. S. E. Robertson, Burton-on-Trent—equal ; 135. V. Chastel de Boinville, Westmoreland ; T. J. H. Hofmeyr ; and T. S. M. Lumsden, Prestonkirk—equal ; 138. A. E. Hunter and G. Clark Trotter, Edinburgh—equal ; 140. James E. M. Brown ; W. A. Duncan, Edinburgh ; A. P. R. Fennell, Cape Colony ; and Vivian M. Fergusson, Richmond-on-Thames—equal ; 144. Amin Chand Bahree ; Theodore E. D. Byrne ; N. C. Fischer, Dollar ; E. A. King, Cheltenham ; P. V. Langmore ; J. Paterson Steven, Montrose ; and T. Lauder Thomson—equal.

ALEX. CRUM BROWN, M.D., *Professor.*

ELEMENTARY ZOOLOGY.

First-Class Honours.—1. R. W. Buchanan ; 2. A. H. Firth and A. L. Gurney—equal (*Medallists*) ; 4. James Halliday.

Second-Class Honours.—5. A. R. Johnston ; 6. Charles Anderson ; 7. H. C. Martin ; 8. P. Murray ; 9. T. S. B. Williams ; 10. R. V. C. Ash ; 11. T. B. Paterson, M.A., and W. H. Prentice—equal ; 13. C. W. Somerville ; 14. H. L. Spark and George C. Burgess—equal ; 16. W. A. Duncan ; 17. A. W. Stark Christie ; 18. Rudolf Hansen ; 19. J. F. Orr ; 20. T. A. Smyth, J. Morley Glasse, W. Lee, and T. B. Shaw—equal ; 24. James Brownlee ; 25. J. R. Edward and George R. Mill—equal.

PRACTICAL ZOOLOGY.

First-Class Honours.—1. T. S. B. Williams ; 2. Charles Anderson and A. L. Gurney—equal (*Medallists*) ; 4. A. H. Firth and H. C. Martin—equal.

Second-Class Honours.—6. G. B. A. Speirs ; 7. H. L. Spark ; 8. P. V. Langmore and K. A. Cappie—equal ; 10. R. V. C. Ash and W. S. Patton—equal ; 12. G. A. Park-Ross, G. C. Strathairn, and T. B. Paterson, M.A.—equal ; 15. John R. Edward, T. S. M. Lumsden, Edward Johnston, Alexander Coskey, and A. G. Waugh—equal.

J. C. EWART, M.D., *Professor.*

PHYSICS.

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Second-Class Honours.—14. John Dalgliesh, British Guiana; 15. John M'Kenzie, Edinburgh; 16. P. F. M'Farlan, Fettes College; 17. W. Eggeling, Edinburgh; 18. Eleanor R. Henderson, Crieff; 19. R. A. J. Harper; 20. Samuel Lyle, Ballymoney; 21. Patrick Shaw, Australia; 22. J. L. Duncan, William Lee, Stephen Garvin, and D. C. Henry—equal; 26. E. P. Calder; 27. A. E. Hunter, and James Wallace—equal; 29. V. M. Fergusson; 30. E. W. M'Lean, and Violet C. M'Laren, Calcutta—equal; 32. Robert Morison, India, and D. W. Standley, Mauritius—equal; 34. C. H. Lindsay, Derry, Ireland; and Alex. M'Ewan, Edinburgh—equal.

C. G. KNOTT, D.Sc., *Lecturer.*

SENIOR PRACTICAL ANATOMY.

First-Class Honours.—1. W. J. Barclay, B.A., New Zealand; William Bennett, Ireland; and J. G. Munro, Thurso—equal; 4. Y. A. Djedjizian, Asia Minor; and W. J. Stuart, M.A., Edinburgh—equal (*Medallists*); 6. Nisar Ahmed; H. G. Carlisle, Liverpool; J. D. Comrie, M.A., Aberdeenshire; David Ewart, New Zealand; T. B. Gornall, Preston; G. G. Hay, Abernethy; G. D. Laing, Northumberland; James Lückhoff, Cape Colony; James Miller, B.Sc., Edinburgh; and C. H. J. Watson, Cape Colony—equal; 16. Harvey Baird, Perth; R. R. Fasson, Edinburgh; J. H. Gordon, Mid-Lothian; F. G. Ralston, Glasgow; and L. M. Wedderburn, Forfar—equal; 21. G. A. Brogden; W. J. D. Bromley, Lancaster; David Ferrier, Dundee; B. K. Goldsmith, Isle of Man; Thomas Livingstone, Durham; Sutherland Simpson, B.Sc., Orkney; and W. R. E. Williams, Wales—equal; 28. Joseph Cæsar, Dumfries; J. J. Galbraith, Inverness; A. G. Heath, Surrey; James Husband, Edinburgh; H. M. Mackenzie, Scotland; George Mackie, Montrose; V. E. Sorapure, Jamaica; and R. G. Thomson, Fifeshire—equal; 36. J. A. Balck, Rostock; D. R. Evans, Merionethshire; D. J. Hughes, North Wales; R. F. Jardin, British Guiana; T. P. Oates, Cape Colony; A. S. M. Peebles, Scotland; D. R. Rees, South Wales; A. K. Smith-Shand, Aberdeen; R. B. Turnbull, Ross-shire; and W. G. Williams, Wales—equal; 46. D. A. Callendar, Edinburgh; William Ewart, New Zealand; Arthur Preston, Yorkshire; F. E. Richards, Wales; R. M. Rowe, Edinburgh; and E. M'K. Young, Kinross—equal; 52. J. G. Jack, Edinburgh; P. N. M. Macdonald; G. C. M'Leavy, Ireland; and George Thomson—equal; 56. Yoshinobu Fukuda, Japan; R. A. Macneill; L. W. Macpherson, Edinburgh; T. S. A. Orr, Wigtownshire; and William Park, Orkney; 61. T. C. Mackenzie, China; C. E. Smith, New Zealand; and H. D. Wilson, Australia—equal; 64. I. K. Hermon, Montrose; D. B. King, Fifeshire; and James Masson, Edinburgh—equal; 67. Kirkland Chapel, Arbroath; John

Jeffrey, Jedburgh; Florizel Myers, Jamaica; and Angus Whyte, Easdale—equal; 71. R. J. Asbury; J. L. Louis, Mauritius; E. T. Melhuish, New Zealand; John M. Macdonald, Glenelg; W. M. Mackay, Durham; P. A. Maclagan, Edinburgh; and N. D. Walker, London—equal; 78. S. L. Dawkins, South Australia; Hugh Faulkner, France; and J. Ramsay Munro, Norwich—equal; 81. P. J. Bodington, Norfolk; R. M. Dalziel, Nagpur; S. C. Pritchard, London; and C. Heron Watson, Edinburgh—equal; 85. W. J. Collinson, Guernsey; and William Reid, Montrose—equal; 87. L. D. H. Baugh, Jamaica; A. S. Frank, Yorkshire; and William Paterson, Peebles—equal; 90. John Anderson, Dollar; J. C. Carr, Carlisle; and W. T. James, Wales—equal; 93. J. S. Bostock; D. J. Fergusson, Richmond-on-Thames; George Haddow, Scotland; W. C. Spooner, Blandford; and A. S. Whytock, Fifeshire—equal; 98. G. J. R. Carruthers, Edinburgh; David Fenton, Forfar; W. J. N. M'Farlan, Dumfriesshire; M. C. C. Seton, Edinburgh; and C. J. Wotherspoon—equal.

SECOND-CLASS HONOURS.—1. Morden Carthew, South America; and J. Wishart-Kerr, Scotland—equal; 3. E. G. Ford; E. A. Loch, India; and J. G. Mitchell—equal; 6. E. J. Nichols, Northampton; 7. D. G. Barclay, Ireland: 8. E. J. Porteous, Alva; 9. J. M. Ross, Edinburgh; 10. Alexander Hunter, Ayrshire.

LECTURES ON ANATOMY.

SENIOR STUDENTS.

FIRST-CLASS HONOURS.—1. A. A. Martin, New Zealand (*Medallist*).

SECOND-CLASS HONOURS.—Wm. Wallace, Berwick.

JUNIOR PRACTICAL ANATOMY.

FIRST-CLASS HONOURS.—1. W. E. C. Dickson, Edinburgh; Alexander Frew, Ayrshire; A. A. Martin, New Zealand; H. J. M'Lean, New Zealand; and W. C. Ross, Ayrshire—equal (*Medallists*); 6. S. A. Ballantyne, Lanarkshire; and W. E. Frost, Ireland—equal; 8. R. V. Clark, Edinburgh; John Craig, Edinburgh; G. H. Hanna, Jamaica; J. G. S. Jamieson, M.A., Ayr; Langworthy Laurie, Worcester; Angus M'Nab, New Zealand; and F. D. Simpson, Bathgate—equal; 15. T. H. W. Alexander, Perth; Robt. Affleck, Castle-Douglas; G. S. Carmichael, Edinburgh; J. S. Geikie, Edinburgh; Andrew Hunter, Edinburgh; and J. B. Milne, Montrose—equal; 21. Wm. Edie, Cumberland; H. C. Gibson, Orkney; F. K. Kerr, Leith; W. Mair, M.A., Edinburgh; Norman Paterson, Ancrum; and Garnett Wright, Whitehaven—equal; 27. J. G. M'Dougall, Montrose; W. S. Scott, Selkirk; Alex. Trotter, Perth; and A. M. Wood, Leith—equal; 31. Fred. Hardie, Kirkcaldy; E. B. Jamieson, Shetland;

F. C. Matthew, Corstorphine; James Munro, Dornoch: and L. C. Peel Ritchie, Edinburgh—equal; 36. A. B. Black, Madras; Malcolm Campbell, Edinburgh; J. H. M'Kee, Belfast; D. S. M'Knight, Whitburn; and H. M. Spiers, Haltwhistle—equal; 41. A. W. S. Christie, Fifeshire; P. S. Haldane, Bridge of Allan; G. A. Park-Ross, Dingwall; C. E. Southon, India; and Philip Weatherbe, Nova Scotia—equal; 46. J. J. Lowell, Singapore; 47. H. E. Arbuckle, Natal; 48. Ewen Cameron; and A. L. Roxburgh—equal; 50. N. S. Wells, Burma; 51. J. B. Primmer, Dunfermline.

SECOND-CLASS HONOURS.—52. J. F. Selkirk, Aberdeen; 53. J. A. L. Wallace, Aberdeenshire; 54. Evan Macmillan, Edinburgh.

LECTURES ON ANATOMY.

JUNIOR STUDENTS.

FIRST-CLASS HONOURS.—1. W. E. C. Dickson, Edinburgh; 2. E. B. Jamieson, Shetland; 3. J. G. S. Jamieson, M.A., Ayr; and C. B. Snow, New Zealand—equal; 5. F. F. Cavanagh, Ireland (*Medallists*); 6. Andrew Hunter, Edinburgh; 7. A. C. Keay, Perthshire; and Peter Murray, M.A., Moray—equal; 9. O. Charnock Bradley, Lancashire; and R. V. Clark, Edinburgh—equal; 11. A. P. M'Gregor, Scotland; 12. John Ross, Whitburn; and N. S. Wells, Burma—equal; 14. G. S. Murray, Bo'ness; and W. H. Prentice, Edinburgh—equal; 16. J. F. Allan, Strathspey; 17. A. H. Firth, Edinburgh; and G. A. Park-Ross, Dingwall—equal; 19. William Mair, M.A., Edinburgh; John M'Kenzie, Edinburgh; and L. W. Pole, Edinburgh—equal; 22. George Cunningham, Ayrshire; William Miller, Edinburgh; S. G. Peill, Madagascar; and G. C. J. Robertson, Aberdeen—equal.

SECOND-CLASS HONOURS.—1. R. T. B. Baillie, Brechin; and A. R. Johnstone, Forfar—equal; 3. J. L. Duncan, Leith; and A. G. Waugh, Scotland—equal; 5. J. W. Duffus, Edinburgh; and J. A. Gray, India—equal; 7. D. J. Brownlie, Fifeshire; and W. H. Dickinson, Jarrow-on-Tyne—equal; 9. W. Landsborough, Kilmarnock; W. MacDougall, M.A., Rothes; and W. G. Porter, India—equal; 12. Norman Glegg, Edinburgh; and D. A. Ogilvie, Fifeshire—equal; 14. N. F. MacHardy, Argyle; and David Sutherland, Edinburgh—equal; 16. Henry Alexander, Ireland; J. J. Lowell, Singapore; and Samuel Lyle, Ballymoney—equal; 19. K. C. D. Macrae, Inverness-shire; and James Woods, Belfast—equal; 21. A. J. Brock, West Lothian; 22. Wm. Eggeling, London; Rudolph Hansen, Copenhagen; H. Mason, Thorne; and T. B. Shaw, Down—equal; 26. Harry Buist, Dundee; V. M. Fergusson, Richmond-on-Thames; E. A. Walker, Forfar; and F. E. Wilson, Leith—equal; 30. R. Dods Brown, Edinburgh; and P. F. M'Farlan, Dumfriesshire—equal; 32. G. C. Burgess, Aber-

deen; R. A. Cameron, New Zealand; John Duncan, Kinross; and J. G. M'Bride, Edinburgh—equal; 36. James Halliday, Dumfries; 37. H. C. Martin, Dungannon; 38. G. S. Blandy, Woolwich; P. S. Haldane, Bridge of Allan; R. A. J. Harper, Dalkeith; G. R. Mill, Arbroath; George Pereira, Trinidad; J. R. Prytherch, Anglesey; and C. C. Wilson, Stirling—equal; 45. James Brownlee, Edinburgh; W. H. Meyer, Britsih Guiana; S. W. M'Clean, Ireland; L. A. McMunn, Staffordshire; T. B. Paterson, M.A., Edinburgh; W. S. Patton, India; Lawrence Rundall, India; and C. W. Somerville, Dalkeith—equal; 53. A. L. Gurney, Jersey; Ian S. Stewart, Langholm; and Paul Telles, Trinidad—equal; 56. Edward Johnston, Uruguay; M. W. Robertson, Edinburgh; and J. A. Smith, Belfast—equal; 59. J. E. M. Brown, Mauritius; and George Wilson, Scotland—equal; 61. Alfred Brown, Edinburgh; A. R. Hallam, Sheffield; E. W. Lewis, India; A. F. G. Masson, Mauritius; and J. G. M'Caughey, Lisbreen—equal; 66. A. A. Ayton, Jamaica; James Brocket, Scotland; A. T. Gavin, Scotland; William Hamilton, Antrim; C. W. Howe, Edinburgh; G. A. Jolly, Edinburgh; H. K. Macdonald, Sutherland; and C. W. Saleeby, Sussex—equal.

The Senior "John Aitken Carlyle" Bursary in *Anatomy and Physiology* was awarded to A. A. Martin, New Zealand.

The Junior "John Aitken Carlyle" Bursary in *Anatomy* and *Chemistry* was awarded to A. C. Keay, Perthshire.

Mackenzie Bursaries for Proficiency in Dissecting were awarded to H. J. M'Lean, New Zealand; and A. A. Martin, New Zealand—equal; and H. M. Spiers, Haltwhistle; G. D. Whyte, London—equal; *prox. access.*—W. E. C. Dickson, Edinburgh; W. C. Ross, Ayrshire.

The following gentlemen acted as Prosectors to the Class:—

J. A. Balck, Rostock.
Yoshinobu Fukuda, Japan.
T. C. Mackenzie, China.
L. M. Wedderburn, Forfar.

W. TURNER, Kt., M.B., *Professor.*

PHYSIOLOGY.

SENIOR DIVISION.

First-Class Honours.—1. H. G. Carlisle, Liverpool; 2. C. H. J. Watson, Cape Colony; 3. G. G. Hay, Abernethy (*Medallists*); 4. G. A. Davidson, Stranraer; 5. W. J. D. Bromley, Lancaster; 6. W. J. Barclay, New Zealand; and T. S. A. Orr, Wigtownshire—equal; 8. Y. A. Djedjizian, Asia Minor; and J. Pender, Dumfriesshire—equal; 10. J. D. Comrie, Aberdeenshire; and R. R. Fasson, Edinburgh—equal; 12. B. K. Goldsmith, Isle of Man; J. Lückhoff, Cape Colony; H. M. Mackenzie, Helensburgh; and J. Miller, Edinburgh—equal; 16. G. Mackie, Montrose; W.

Rogers, Wales; G. Thomson, Edinburgh; and R. G. Thomson, Fife—equal; 20. J. H. Gordon, Mid-Lothian; 21. J. B. Cassels, India; J. Fullarton, Glasgow; J. J. Galbraith, Inverness; J. G. Jack, Edinburgh; Nisar Ahmed, India; A. Preston, Yorkshire; and W. J. Stuart, Edinburgh—equal; 28. G. D. Laing, Northumberland; 29. D. A. Callender, Edinburgh; and T. Livingstone, Stanhope—equal; 31. J. F. Martin, Limerick; and R. M. Rowe, Edinburgh—equal.

SECOND-CLASS HONOURS.—33. E. A. Brown, Cape Colony; and W. A. Murray, Cape Colony—equal; 35. J. Jeffrey, Jedburgh; 36. D. Ferrier, Dundee; and J. Masson, Edinburgh—equal; 38. J. G. Mitchell, Sutherlandshire; and A. W. Nankervis, Melbourne—equal; 40. H. Baird, Perth; J. Spencer Low, Yorkshire; and J. G. Munro, Thurso—equal; 43. P. J. Bodington, Norfolk; P. W. Hampton, Isle of Man; W. Reid, Montrose; and J. A. Thomson, Wigtownshire—equal; 47. W. M. Mackay, Durham; M. M'Kelvie, Campbeltown; G. C. M'Leavy, Belfast; and L. W. Macpherson, Edinburgh—equal; 51. H. W. Boreham, Dorset; and G. A. Brogden, London—equal; 52. W. T. James, Wales; 53. J. Anderson, Dollar; S. L. Dawkins, So. Australia; D. J. Fergusson, Richmond; and R. B. Turnbull, Ross-shire—equal; 57. G. R. Laing, Leith; A. S. M. Peebles, Coatbridge; and E. J. Peill, Madagascar—equal; 60. G. Haddow, Falkirk; J. Ramsay Munro, Norwich; P. A. Maclagan, Edinburgh; and R. N. Pringle, Cape Colony—equal; 63. J. A. Balck, N. Germany; W. Darling, Edinburgh; J. Husband, Edinburgh; and A. S. Whytock, Fife—equal; 67. J. Cæsar, Amisfield; J. K. Hermon, Montrose; and S. C. Pritchard, London—equal; 70. J. M. Buist, Edinburgh; P. C. Campariole, Trinidad; and D. J. C. Oliver, Edinburgh—equal; 73. K. Chapel, Arbroath; and G. B. Robinson, Manchester—equal; 75. J. C. Carr, Carlisle; A. C. Heath, Surrey; C. E. Smith, New Zealand; and A. K. Smith-Shand, Aberdeen—equal; 79. G. W. Smith, West Indies; W. R. E. Williams, Llanfyllin; and E. M. Young, Kinross—equal; 82. G. J. R. Carruthers, Edinburgh; and E. A. Loch, India—equal; 84. E. B. Anderton, Ormskirk; 85. A. G. M'Leod, New Zealand; and James Orr, Hawick—equal; 87. F. J. Hathaway, India.

JUNIOR DIVISION.

FIRST-CLASS HONOURS.—1. Andrew Hunter, Edinburgh; 2. Fred D. Simpson, Bathgate; 3. Frank Young, Kirkcaldy (*Medallists*); 4. G. S. Carmichael, Edinburgh; 5. D. Ewart, New Zealand; and E. Ewart, Moffat—equal; 7. R. A. Ross, Cape Colony, and C. B. Snow, New Zealand—equal; 9. W. E. Frost, Limerick; 10. G. H. Hanna, Jamaica; H. J. M'Lean, New Zealand; N. Patterson, Ancrum; and G. Wright, Whitehaven—equal; 14. D. Heron, Co. Down; T. H. W. Alexander, Perth;

W. Girdwood, S. Africa; J. G. S. Jamieson, M.A., Ayr; A. A. Martin, New Zealand; Angus M'Nab, New Zealand; and A. M. Wood, Leith—equal; 21. P. N. M. Macdonald, New Zealand; 22. J. H. Bell, Edinburgh; E. B. Jamieson, Shetland; and J. M. A. Macmillan, Edinburgh——equal; 25. W. Ewart, New Zealand; and W. Wallace, Berwick—equal; 27. S. A. Ballantyne, Lanarkshire; H. Harris, Lincolnshire; and D. W. Smith, London—equal.

SECOND-CLASS HONOURS.—30. A. B. Black, Madras; J. Craig, Edinburgh; and L. C. Peel Ritchie, Edinburgh—equal; 33. M. A. Swan, Paisley; and A. Trotter, Perth—equal; 35. H. D. Shepherd, Wigan; 36. L. Laurie, Worcester; J. G. M'Dougall, Montrose; and W. S. Scott, Selkirk—equal; 39. A. J. Baird, Port-Glasgow; and J. C. Gilchrist, Dumfries—equal; 41. F. C. Matthew, Corstorphine; James Munro, Dornoch; and J. K. A. Robertson, Greenock—equal; 44. S. Rattray, Edinburgh; 45. N. S. Wells, Moulmein; and R. G. Leach, Rochdale; 47. J. B. Milne, Montrose; 48. M. C. Beatty, Ireland; 49. D. B. B. Hughes, Grenada; and C. E. Southon, Lucknow—equal; 51. J. M. L. Brown, Scotland; H. B. Dodds, Edinburgh; and G. D. Whyte, London—equal; 54. J. M. Macdonald, Glenelg; 55. R. Affleck, Castle-Douglas; A. D. Spence, Montrose; and G. R. Turner, London—equal; 58. J. D. Anderson, Moffat; G. W. P. Maitland, India; and H. T. Wolfenden, Lancaster—equal; 61. W. P. Cormack, Wick; 62. W. J. Dunn, Lauder; and J. F. Selkirk, Aberdeen—equal; 64. H. E. Arbuckle, Natal; J. S. Enslin, S. Africa; F. Hardie, Kirkcaldy; H. J. Hoile, Dundee; A. G. Martin, Antrim; T. A. Mackenzie, Edinburgh; and D. S. Macknight, Whitburn; 71. G. Byres, Aberdeen; R. Imrie, Castle-Douglas; W. Purves, Caithness; and A. G. Watson, Southport—equal; 75. C. M. Anderson, Culcrum; L. N. Biggs, India; R. A. Cameron, New Zealand; and J. G. Mackenna, Dumfries—equal; 79. W. Brown, Galashiels; J. P. Campbell, Aberdeenshire; J. C. Parker, Alloa; and P. C. Rayner, Nottingham—equal.

PRACTICAL PHYSIOLOGY.

FIRST-CLASS HONOURS.—1. T. S. A. Orr, Wigtownshire; 2. Nisar Ahmed, India; 3. G. Haddow, Falkirk.

SECOND-CLASS HONOURS.—4. R. A. M. Macleod, Scotland; 5. W. T. James, Wales; 6. T. Graham, Cumberland; and E. G. D. Menzies, Innerleithen—equal.

WILLIAM RUTHERFORD, M.D., *Professor.*

MATERIA MEDICA.

FIRST-CLASS HONOURS.—1. George H. J. Watson, Cape Colony; 2. H. G. Carlisle, Liverpool; 3. William John Barclay, New

Zealand; 4. Y. A. Djedjizian, Asia Minor; and Arthur Preston, Yorkshire—equal (*Medallists*); 6. John Anderson, Dollar; 7. David Ferrier, Dundee; and Sutherland Simpson, Orkney—equal; 9. E. Archer Brown, Cape Colony; James Miller, Edinburgh; and George Thomson, Edinburgh—equal.

Second-Class Honours.—12. Robert Ritchie, Edinburgh; 13. Robert M. Rowe, Edinburgh; 14. Thomas Livingstone, Durham; Robert G. Thomson, Fifeshire; L. Maclagan Wedderburn, Forfar—equal; 17. David Ewart, New Zealand; and James Orr, Hawick—equal; 19. David R. Evans, Wales; John H. Gordon, Mid-Lothian; and John G. Jack, Edinburgh—equal; 22. Thomas B. Gornall, Preston; George Mackie, Montrose; and John Thornhill, Cork—equal; 25. Harvey Baird, Perth; George H. J. Brown, India; and Patrick P. Gauteaume, Trinidad — equal; 28. George D. Laing, Northumberland; Louis W. Macpherson, Scotland; and William Reid, M.A., Montrose—equal; 31. William Bennett, Ireland; John Jeffrey, Jedburgh; A. S. M. Peebles, Scotland; and W. J. Stuart, Edinburgh—equal; 35. Herbert C. Keun, Singapore; William M. Mackay, Durham; and H. M. Mackenzie, Scotland—equal; 38. H. Bonar Dodds, Edinburgh; Maxwell MacKelvie, Campbeltown; and Robert B. Turnbull, Ross-shire—equal; 41. John Fullarton, Glasgow; W. T. James, Wales; and Alexander Mouat, Haddington—equal; 44. Alfred Hume Griffiths, Bedford; James Husband, Edinburgh; and James Luckhoff, Cape Colony—equal; 47. O. Charnock Bradley, Lancashire; and George A. Davidson, Wigtownshire—equal; 49. P. H. Macdonald, Leith, and D. J. C. Oliver, Edinburgh—equal; 51. J. M. Macdonald, Glenelg; 52. William Darling, Edinburgh; Robert A. MacNeill, Glasgow; James Masson, Edinburgh; Edward G. D. Menzies, Innerleithen; and James R. Munro, Norwich—equal; 57. Percy W. Hampton, Isle of Man; S. Clifford Pritchard, London; and E. M'Killop Young, Kinross — equal; 60. Florizel Myers, Jamaica; and William Rogers, Wales—equal; 63. William Ewart, New Zealand; Bernard K. Goldsmith, Isle of Man; and W. R. Eyton-Williams, Wales—equal; 65. Leonard D. H. Baugh, Jamaica; A. Stanley Frank, Yorkshire; and A. K. Smith-Shand, Aberdeen—equal; 68. William John D. Bromley, Lancaster; David A. Callender, Edinburgh; David Fenton, Forfar; Drummond J. Fergusson, Richmond; James G. Galbraith, Inverness; A. C. Heath, Surrey; Jean Leon Louis, Mauritius; Alexander John Mackenzie, Inverness; Arthur G. Martin, Ireland; E. G. Osborne Nixon, Jamaica; and A. S. Whytock, Fifeshire—equal.

The following gentlemen were unavoidably absent from one of the examinations:—J. B. Cassels, India; John Pender, Dumfriesshire; and Elbert Steyn, Cape Colony.

PRACTICAL MATERIA MEDICA.

SECOND-CLASS HONOURS.—Michael M'Farland, Meikle, Jamaica.

THOMAS R. FRASER, M.D., *Professor.*

GENERAL PATHOLOGY.

FIRST-CLASS HONOURS.—1. Alfred C. Sandstein, New Zealand; 2. D. B. Waters, M.A., Wick; 3. A. C. M'Gilchrist, M.A., Islay; and R. F. M'Nair-Scott, B.A., Singapore—equal (*Medallists*); 5. John Cameron, Laurencekirk; 6. J. H. Rhodes, Kendal; and H. H. Roberts, South Wales—equal; 8. William Bell, England; 9. W. N. Barker, Newburgh-on-Tay; and J. F. Falconer, Elgin—equal.

SECOND-CLASS HONOURS.—11. J. W. Mackenzie, Inverness; 12. W. Carlyle Wilson, Crieff; and Ward Smith, Leek—equal; 14. E. H. Brunt, Leek; Robert Gibson, Wigtownshire; and Albert A. Gunn, Ross-shire—equal; 17. Stanley Branch, West Indies; R. J. Dick, Dunbar; and D. V. M'Intyre, Dundee—equal; 20. A. M'Watt Green, Isle of Skye; and William M'Kay, New Zealand—equal; 22. H. H. Broome, Manchester; Robert Cumming, Montrose; H. E. Gibbs, New Zealand; W. P. Meldrum, B.Sc., Mauritius; and Alfred Shearer, Orkney—equal; 27. Duncan Forbes, Perth; and Andrew Gilmour, Edinburgh—equal; 29. George Dick, Caithness; Alfred T. Gailleton, Perth; C. A. B. Horsford, West Indies; and R. W. Mackenna, M.A., Dumfries—equal; 33. W. M. Paul, M.A., Dollar; Thomas A. Price, Queensland; George A. Rorie, Dundee; and David Wardrop, Greenock—equal; 37. Nisar Ahmed, India; James Burnet, Scotland; Alexander B. George, Montrose; E. C. G. Maddock, Canada; T. R. Matthews, Jamaica; and W. E. J. Wallis, Hampshire—43. Alex. Goodall, Ayrshire; and G. B. Pemberton, Dublin—equal; 45. James Allison, Lanarkshire; and John M. Bowie, Scotland—equal; 47. George E. J. King, Cheltenham; Ernest W. Lewis, India; and Robert Cameron, Crieff—equal; 50. Balfour S. Hyslop, Leven; 51. D. V. M. Adams, Lanark; L. D. Parsons, B.A., Madras; and W. E. Tellet, Bridge of Allan—equal; 54. James R. Anderson, Orkney; William Craig, Kelso; William Tarr, Somerset; and J. Rutter Williamson, England—equal; 58. R. N. Brebner, Canada; Edward M'Culloch, Joppa; James A. Murray, Mid-Lothian; C. M. Pearson, Edinburgh; and Arthur H. Thomas, Cornwall—equal; 63. C. S. Brebner, Darlington; 64. William Bennett, Ireland; Thomas E. Hincks, South Wales; and James A. Raeburn, Edinburgh—equal; 67. Edmund R. Branch, West Indies; and J. M. Cuthbert, Scotland—equal; 69. C. Forsyth, Berwick; W. J. Jones, N. Wales; Gerrit de Labat, Cape Colony; H. G. P. Raeburn, Leith; and J. A. C. Smith, Spalding—equal; 74. Anthony S. Parker, Cheltenham; and

Arthur Whittome, Cambridgeshire—equal ; 70. J. Monroe, Edinburgh ; and A. K. Traill, Edinburgh—equal ; 78. W. E. Hutchison, India ; W. Lockerbie, Edinburgh ; and Philip E. Millard, Nottinghamshire—equal.

Absent through illness from one Examination :—

SECOND-CLASS HONOURS :—Henry Wade, Falkirk ; Robert Bruce, Edinburgh ; and Robert Pugh, Wales.

PRACTICAL PATHOLOGY.

FIRST-CLASS HONOURS.—1. J. A. Murray, Mid-Lothian (*Medallist*) ; 2. Robert Cameron, Crieff ; 3. J. W. Inglis ; 4. James M. Gray, Fife.

SECOND-CLASS HONOURS.—5. William Tarr, Somerset ; 6. P. H. Macdonald ; 7. G. A. Mackay ; 8. A. B. George, Montrose ; 9. Joseph Hunter, Dumfriesshire ; 10. H. G. P. Raeburn, Leith ; 11. T. Jenkins, Morayshire.

W. S. GREENFIELD, M.D., *Professor.*

PRACTICE OF MEDICINE.

SENIORS.

FIRST-CLASS HONOURS.—1. C. M. Cooper, England ; 2. William F. Harvey, M.A., India ; and A. H. Watt, Edinburgh — equal (*Medallists*) ; 4. Edwin Matthew, Aberdeen ; 5. John Malcolm, Caithness ; and L. W. Davies, Wales—equal ; 7. T. A. Ross, Edinburgh ; and George C. Low, M.A., Forfarshire—equal ; 9. T. R. W. Armour, Edinburgh ; and H. S. Ballantyne, Eskbank—equal ; 11. L. Kingsford, New Zealand ; 12. Alex. J. W. Buchanan, Scotland ; 13. W. M. A. Smith, Forfarshire ; 14. W. R. Somerset, England ; 15. James Forrest, Lancashire ; and W. H. Goldie, New Zealand—equal.

SECOND-CLASS HONOURS.—17. Barclay Black, Scotland ; and A. H. Pirie, B.Sc., Dundee—equal ; 19. D. Clow, Kelso ; G. F. Waterston, Forfarshire ; and A. B. MacCarthy, Queenstown—equal ; 22. A. W. G. Clark, Scotland ; Robert Selby, Wigtownshire ; A. G. Naylor, Gloucester ; Thomas M'Hattie, West Indies ; and D. C. Sethna, Bombay—equal ; 27. Thomas Biggam, Scotland ; and G. Crewdson Thomas, Bath—equal ; 29. Ian L. MacInnes, India ; and George Chiene, Edinburgh—equal ; 31. William Burns, M.A., Forfarshire ; 32. G. Fourie, Orange Free State ; 33. E. H. Irwin, Ireland ; 34. W. G. Heath, West Indies ; Thomas M. Ness, Dundee ; and J. D. Slight, Portobello—equal ; 37. Mack W. Manuk, Calcutta ; and J. S. Harper, Hawkhurst—equal ; 39. H. M. Bundey, Australia ; Leonard Boyer, Lincoln ; and J. G. Forbes, Edinburgh—equal ; 42. A. R. Wight, Fife ; 43. James Haworth, Lancashire ; 44.

Robert Thornton, Arbroath; S. C. Bose, India; and G. W. Fitzgerald, Trinidad—equal; 47. Thomas N. Johnston, Edinburgh; 48. M. N. Chandhuri, India; 49. E. B. Anderton, England; and George R. Twomey, Ireland—equal; 51. T. W. A. Daman, England; and Henry Taylor, England—equal.

Absent from the Examination:—Second-Class Honours.—1. J. Boyd Jamieson, Edinburgh; 2. Lewis T. L. Liddell, Edinburgh; 3. L. M. Cairns, Galashiels.

JUNIORS.

First-Class Honours.—1. E. Harries Jones, Wales; 2. W. Hope Fowler, Scotland; 3. Andrew Gilmour, Edinburgh; 4. A. Dingwall Fordyce, Edinburgh (*Medallists*); 5. J. R. Atkinson, Crewe; and T. P. Greenwood, B.Sc., Yorkshire—equal; 7. W. N. Barker, Scotland; and R. J. Dick, Dunbar—equal; 9. Alfred T. Gailleton, Perth; and John W. Mackenzie, Inverness—equal; 11. A. C. M'Gilchrist, M.A., Islay; 12. George E. J. King, Cheltenham; and D. B. Waters, M.A., Wick—equal; 14. R. W. T. Ewart, Dumfriesshire; 15. James R. Anderson, Orkney; H. H. Broome, Lancashire; and William J. Jones, Wrexham—equal; 18. A. L. Anderson, New Zealand; William Bell, Barrow-in-Furness; and S. G. Champion, Sussex—equal; 21. James Allison, Lanarkshire; and John S. Lyle, Ireland—equal; 23. Hugh L. Apthorp, Bedford.

Second-Class Honours.—24. John Cameron, Laurencekirk; and George Dick, Wick—equal; 26. Stewart Faed, Edinburgh; and R. Gellatly, Lancashire—equal; 28. G. L. K. Finlay, Edinburgh; D. V. M'Intyre, M.A., Forfarshire; R. W. Mackenna, Dumfries; and W. Tarr, Somerset—equal; 32. W. S. Eaton, England; and A. W. Limont, Alnwick—equal; 34. J. M. Cuthbert, Scotland; J. H. P. Paton Edinburgh; J. E. Rosenstein, Cairo; and Alfred Shearer, Orkney—equal; 38. James P. Sturrock, Scotland; 39. J. W. Breeks, India; and J. W. Inglis, Perthshire—equal; 41. Robert Cumming, Montrose; 42. R. Bruce, Edinburgh; and H. G. P. Raeburn, Leith—equal. 44. Ivie Aird, Lockerbie; F. J. H. Bateman, Berwick; A. B. George, Montrose; Patrick Leighton, Edinburgh; J. Spencer Low, Yorkshire; and L. D. Parsons, B.A., Madras—equal; 50. C. W. F. Melville, Edinburgh; and W. C. Wilson, India—equal; 52. D. V. M. Adams, Lanark; George A. Rorie, Dundee; and Jas. A. Raeburn, Leith—equal; 55. A. F. Perigal, England; 56. Graeme Hamilton, England; and George F. B. Simpson, Edinburgh—equal; 58. L. D. Farquharson, Scotland; and R. Gibson, Wigtown—equal; 60. Joseph Hunter, Dumfries; 61. Fred M. Black, Scotland; and A. T. Whyte, Jedburgh—equal; 63. W. Lockerbie, Edinburgh; and J. A. Murray, Mid-Lothian—equal; 65. Edgar F. Cyriax, London; and John

M'Gibbon, Edinburgh—equal; 67. W. H. Dickinson, Newcastle; A. A. Gunn, Strathpeffer; James Leggate, Holytown; John M'Gregor, Crieff; Henry S. Roberts, Wales; and G. J. Young, England—equal; 73. W. C. Macdonald and George H. Stewart, India—equal; 75. A. Whittome, England; 76. T. B. H. Scott.

Absent from one Examination:—SECOND-CLASS HONOURS.—1. Henry Wade, Falkirk; 2. T. R. Matthews, Jamaica; 3. L. H. Barfoot Mills, Norwich.

T. GRAINGER STEWART, Kt., M.D., *Professor.*

MIDWIFERY.

FIRST-CLASS HONOURS.—1. W. H. Goldie, Auckland, New Zealand; 2. Edwin Matthew, Elgin; 3. C. M. Cooper, England; 4. T. R. W. Armour, Edinburgh (*Medallists*); 5. G. C. Low, Forfarshire; 6. L. A. Crooks, Jamaica; F. W. More, Caithness; and T. M. Ness, Dundee—equal; 9. T. Biggam, Wigtownshire; Ll. W. Davies, N. Wales; and A. H. Watt, Edinburgh—equal; 12. H. S. Ballantyne, Eskbank; W. R. Somerset, Derbyshire; and W. M. Paul, M.A., Dollar—equal; 15. J. R. Atkinson, Crewe; and D. E. Dickson, Blairgowrie—equal; 17. W. H. Fowler, Scotland; P. Kinmont, Scotland; A. C. Sandstein, New Zealand; and W. M. A. Smith, Forfarshire—equal; 21. D. Clow, Kelso; and E. Sommerville, Staffordshire—equal; 23. G. Chiene, Edinburgh; J. B. Jamieson, Edinburgh; and J. D. Slight, Portobello—equal; 26. E. H. Jones, N. Wales; J. Malcolm, Caithness; T. J. T. M'Hattie, Antigua, W.I.; A. G. Naylor, Gloucester; and Ward Smith, England—equal; 31. A. C. M'Gilchrist, M.A., Islay; E. F. M. Neave, Scotland; A. H. Pirie, Dundee; and J. P. Sturrock, Scotland—equal; 35. G. E. J. King, Cheltenham; and G. C. Thomas, Bath—equal; 37. H. F. Boland, Dundee; J. Burnet, Edinburgh; R. W. T. Ewart, Dumfriesshire; and A. L. de Jager, S. Africa—equal; 41. A. J. W. Buchanan, Scotland; G. B. Hollings, London; and L. Kingsford, New Zealand—equal.

SECOND-CLASS HONOURS.—44. J. Allison, Lanarkshire; E. P. Baumann, Cape Colony; W. Bell, Barrow-in-Furness; J. Forrest, England; and J. H. P. Paton, Edinburgh—equal; 49. W. Gorrie, Scotland; T. P. Greenwood, Yorkshire; John Henderson, Ireland; W. J. Jones, Wrexham; and G. F. Waterston, Scotland—equal; 54. J. W. Mackenzie, Inverness; and H. Nuttall, Bradford—equal; 56. F. D. H. Adamson, Scotland; 57. A. Goodall, Scotland; and A. R. Wight, Fife—equal; 59. J. Grieve, London; M. E. Jones, Wales; and J. R. H. Walker, Edinburgh—equal; 62. C. A. B. Horsford, West Indies; and J. E. Rosantein, Cairo—equal; 64. L. S. L. Liddell, Edinburgh;

G. W. Miller, Dundee; and A. Shearer, Orkney—equal; 67. H. L. Apthorp, Bedford; and W. H. Dickinson, Newcastle—equal; 69. G. Fourie, Orange Free State; 70. J. M. Bowie, Edinburgh; H. M. Bundey, Australia; M. N. Chaudhuri, India; and R. Cumming, Montrose—equal; 74. G. H. Parry, Southampton; 75. A. Gilmour, Edinburgh; R. W. Mackenna, Dumfries; T. D. Maclaren, Edinburgh; and W. C. Wilson, India—equal; 78. S. Faed, Edinburgh; 80. R. Thornton, Arbroath; 81. S. G. Champion, Sussex; and T. N. Johnston, Edinburgh—equal; 83. R. Gibson, Wigtown; and C. M. Pearson, Edinburgh—equal; 85. C. S. Brebner, Darlington; E. H. Irwin, Armagh; and L. D. Parsons, B.A., Madras—equal; 88. R. N. Brebner, Canada; and C. Forsyth, Glasgow—equal; 90. D. Wardrop, Greenock; 91. J. Cameron Laurencekirk; P. Leighton, Edinburgh; and W. Lockerbie, Edinburgh—equal; 94. G. A. Rorie, Dundee; and W. E. Tellet, Bridge of Allan—equal; 96. A. A. Gunn, Strathpeffer; C. M. Robertson, Mexico; and A. G. Worrall; Dundee—equal.

A. R. SIMPSON, M.D., *Professor.*

SYSTEMATIC SURGERY.

SENIORS.

First-Class Honours.—1. Edwin Matthew, M.A., Aberdeen; 2. C. M. Cooper, Somersetshire (*Medallists*); 3. William F. Harvey, M.A., India; and John Malcolm, Caithness—equal; 5. R. W. T. Ewart, Dumfriesshire; 6. D. Elliot Dickson, Blairgowrie; 7. H. S. Ballantyne, Eskbank; 8. Robert Selby, Wigtownshire; 9. R. Gellatly, Lancashire; 10. L. M. Cairns, Galashiels; and J. D. Slight, Portobello—equal; 12. A. R. Wight, Fife.

Second-Class Honours.—13. J. Boyd Jamieson, Edinburgh; 14. William Stanford Eaton, Cumberland; 15. G. Liddell, New Zealand; 16. Thomas M. Ness, Dundee; 17. William Gorrie, Scotland; and E. F. M. Neave, Dundee—equal; 19. J. A. Shoolbread, Portsmouth; 20. Thomas Nicol Johnston, Edinburgh; 21. Thomas B. Shoolbread, Portsmouth; 22. J. Eugene Rosenstein, Cairo; 23. M. N. Chanduri, India; 24. B. R. Craig Christie, Lanarkshire.

JUNIORS.

First-Class Honours.—1. A. B. Black, Madras; and Geo. S. Carmichael, Edinburgh;—equal; 3. Frank Young, Kirkcaldy; 4. G. R. Turner, London (*Medallists*); 5. L. C. Peel Ritchie, Edinburgh; 6. S. Simpson, Orkney; 7. W. O. Williams, Wales; 8. R. A. Ross, Cape Colony; 9. John Craig, Edinburgh; 10. H. J. M'Lean, New Zealand; 11. James Miller, Edinburgh; and G. Wright, Whitehaven —equal; 13. William Girdwood, South

Africa; F. C. Matthew, Corstorphine; and A. M'Nab, New Zealand—equal; 16. S. A. Ballantyne, Lanarkshire; and James Munro, Dornoch—equal; 18. D. S. Macnight, Whitburn; 19. T. H. W. Alexander, Perth; 20. A. J. Baird, Port-Glasgow; and A. M. Wood, Leith—equal.

Second-Class Honours.—22. Malcolm Campbell, Edinburgh; and W. E. Frost, Ireland—equal; 24. J. D. Anderson, Moffat; and N. S. Wells, Burmah—equal; 26. W. C. Ross, Ayrshire; 27. E. Ewart, Moffat; 28. A. Brydon, Jedburgh; W. E. M'Farlane, Lifu; and J. C. Parker, Alloa—equal; 31. J. H. Bell, Dunfermline; and H. D. Shepherd, Wigan—equal; 33. F. K. Kerr, Leith; and T. Grainger Stewart, Edinburgh—equal; 35. Wm. Sloss, Australia; 36. A. C. N. M'Hattie, West Indies; and S. Rattray, Edinburgh—equal; 38. A. A. Martin, New Zealand; and F. D. Simpson, Bathgate—equal; 40. Jas. G. S. Jamieson, M.A., Ayr; 41. H. J. Hoile, Dundee; 42. N. Paterson, Ancrum; 43. L. Laurie, Worcester; 44. A. Trotter, Perth; 45. W. P. Cormack, Wick; 46. J. M. A. Macmillan, Scotland; and C. E. Southon, Lucknow—equal; 48. G. H. Hanna, Jamaica; and J. C. Zuidmeer, Cape Colony—equal; 50. J. G. Mackenna, Dumfries; 51. J. K. A. Robertson, Greenock; 52. J. G. M'Dougall, Montrose; 53. B. H. S. Alward, Yorkshire; J. C. Gilchrist, Dumfries; and W. S. Scott, Selkirk—equal; 56. R. A. Cameron, New Zealand; 57. F. F. C. Jagger, Shrewsbury; 58. H. Harris, Lincolnshire; and A. M. Malcolmson, Leith—equal; 60. T. J. G. Wilson, Tasmania; 61. F. Hardie, Kirkcaldy; 62. Alex. Frew, Ayrshire; 63. T. A. Mackenzie, Edinburgh; 64. C. B. Paul, Scotland; 65. G. W. Guthrie, Liberton; E. B. Jamieson, Shetland; J. B. Milne, Montrose; and H. C. Nixon, Leek, Staffs—equal; 69. H. E. Arbuckle, Natal; and William Wallace, Berwick—equal; 71. L. A. Holcroft, Sevenoaks; A. Gordon Watson, Southport; and A. J. Williamson, Haddington—equal; 74. C. M. Anderson, Ireland; 75. L. N. Biggs, India; M. A. Swan, Paisley; and A. W. Wilson, Lincoln—equal; 78. H. Mason, Barnsley; 79. Andrew Fleming, Edinburgh; 80. S. R. Ellis, India; R. G. Leach, Rochdale; A. D. Spence, Montrose; and H. T. Wolfenden, Lancaster—equal; 84. N. E. Harding, Frome; 85. J. H. Wrightson, Carnforth; 86. G. H. Lewis, Wales; 87. Robert Affleck, Castle-Douglas; 88. D. B. B. Hughes, Grenada; 89. Charles Fraser, Inverness, and R. Hamilton, Bradford—equal; 91. W. J. Dunn, Lauder; 92. Gavin Grey, Edinburgh; 93. G. H. Steven, Scotland; 94. A. L. Roxburgh, Ayrshire; 95. J. S. Enslin, South Africa; J. B. Primmer, Dunfermline; and J. R. Prytherch, Anglesey—equal; 98. P. Weatherbe, Nova Scotia; 99. G. D. Whyte, London; 100. W. Hutchison, Edinburgh.

PRACTICAL SURGERY.

SENIORS.

HONOURS.—R. W. T. Ewart, Dumfriesshire (*Medallist*); William F. Harvey, M.A., India; A. M. Little, Dumfriesshire; Edwin Matthew, M.A., Aberdeen; C. M. Cooper, Somersetshire; D. E. Dickson, Blairgowrie; John Malcolm, Caithness; Robert Selby, Wigtownshire; A. R. Wight, Fife; R. Gellatly, Lancashire; J. Boyd Jamieson, Edinburgh; E. F. M. Neave, Dundee; L. M. Cairns, Galashiels; and J. D. Slight, Portobello.

HAROLD J. STILES, M.B., F.R.C.S., Ed., *Demonstrator.*

JUNIORS.

HONOURS.—George S. Carmichael, Edinburgh (*Medallist*); J. C. Parker, Alloa; and H. M. Speirs, Haltwhistle (*Proxime Accesserunt*); A. J. Baird, Port-Glasgow; F. C. Matthew, Corstorphine; John Craig, Edinburgh; G. R. Turner, London; S. A. Ballantyne, Lanarkshire; A. B. Black, Madras; N. Paterson, Ancrum; C. B. Paul, Scotland; L. C. Peel Ritchie, Edinburgh; R. A. Ross, Cape Colony; J. H. Bell, Dunfermline; J. P. Fleming, Oregon; A. Frew, Ayrshire; W. E. Frost, Ireland; W. Girdwood, South Africa; W. E. M'Farlane, Lifu; W. S. Scott, Selkirk; S. Simpson, Orkney; B. H. S. Aylward, Yorkshire; G. F. Buist, St Andrews; M. Campbell, Edinburgh; E. B. Jamieson, Shetland; F. K. Kerr, Leith; James Miller, Edinburgh; D. S. Macknight, Whitburn; H. C. Nixon, Leek, Staffs.; F. D. Simpson, Bathgate; T. Grainger Stewart, Edinburgh; M. A. Swan, Paisley; T. J. G. Wilson, Tasmania; G. H. Wrightson, Carnforth; J. D. Anderson, Moffat; C. M. Anderson, Ireland; T. H. W. Alexander, Perth; E. Ewart, Moffat; Andrew Fleming, Edinburgh; Norman Glegg, Edinburgh; G. H. Hanna, Jamaica; F. Hardie, Kirkcaldy; John Jamieson, Edinburgh; A. M. Malcolmson, Leith; H. Mason, Barnsley; J. Morrison, Antrim; T. A. Mackenzie, Edinburgh; J. G. M'Dougall, Montrose; H. J. M'Lean, New Zealand; A. M'Nab, New Zealand; William Sloss, Australia; A. D. Spence, Montrose; W. O. Williams, Wales; A. J. Williamson, Haddington; A. W. Wilson, Lincoln; G. Wright, Whitehaven; Frank Young, Kirkcaldy; and J. C. Zuidmeer, Cape Colony.

JAMES GRAY, M.A., M.B., *Demonstrator.*
JOHN CHIENE, M.D., *Professor.*

SPECIAL COURSE IN PUBLIC HEALTH.

FIRST-CLASS HONOURS.—1. D. B. Waters, M.A.; 2. A. C. M'Gilchrist, M.A. (*Medallists*); 3. R. F M'Nair Scott; 4. Alfred T. Gailleton; 5. William N. Barker 6. Duncan Forbes;

7. W. P. Meldrum and Henry Wade—equal; 9. John Cameron; 10. J. Spencer Low and J. Rutter Williamson.

SECOND-CLASS HONOURS.—12. D. V. M'Intyre, M.A.; 13. J. F. Falconer; 14. Joseph Hunter and T. A. Ross—equal; 16. George Dick, Alexander B. George, William James-Jones, and Alfred C. Sandstein—equal; 20. W. Bell, R. Cameron, and W. M. Paul, M.A., equal; 23. J. M. Cuthbert; 24. Ernest W. Louis and James Munroe—equal; 26. J. M. Reid; 27. Robert Cumming, A. A. Gunn, G. de Labat, and Robert W. Mackenna, M.A.—equal; 31. William Craig, George Holliday, and R. C. Verley—equal; 34. James Graham and David Wardrop—equal; 36. D. W. Maclagan, L. D. Parsons, B.A.; Henry Hugh Roberts, and E. Somerville—equal; 40. C. A. B. Horsford; 41. R. J. Dick, T. P. Greenwood, William Lockerbie, and J. Rees Roberts—equal; 45. James Allison and John M'Gregor—equal; 47. R. W. T. Ewart and James A. Raeburn—equal; 49. D. V. M. Adams, A. Dingwall Fordyce, C. Forsyth, J. C. M'Conaghey, T. R. Matthews, and C. M. Pearson—equal; 55. Andrew Gilmour and John W. Mackenzie—equal; 57. W. E. J. Wallis; 58. R. Gibson and G. F. B. Simpson—equal; 60. Leonard J. M. Deas, D. D. Farquharson, A. S. Parker, and Ernest C. Peake—equal; 64. F. M. Parry, William W. Maxwell, Edward M'Culloch, and W. E. Tellet—equal.

For the Professor,
CHARLES HUNTER STEWART,
M.B., C.M., D.Sc.

Faculty of Music.

WINTER SESSION, 1896-97.

HARMONY.

HONOURS CERTIFICATE.—1. John Dunn (*Medallist*); 2. Peter M'Gregor; 3. Harry Taylor; 4. Christina Watson.

HONOURABLE MENTION CERTIFICATE.—5. Ada J. Macmillan; 6. Harriet Mary Taylor; 7. Louie A. Macdonald.

JUNIOR ADVANCED HARMONY.

HONOURS CERTIFICATE.—1. Frank M. Crosbie (*Medallist*); 2. James Craig.

HONOURABLE MENTION CERTIFICATE.—3. Ethel Montgomery; 4. Mary E. Norrie; 5. Ella S. Donaldson; 6. Alice Fraser; 7. Joan C. Graham.

SENIOR ADVANCED HARMONY.

HONOURS CERTIFICATE.—1. Helen Lyon Smith; 2. Agnes Johnston; 3. Margaret Fullarton Kennedy.

JUNIOR COUNTERPOINT.

HONOURABLE MENTION CERTIFICATE.—1. Janet Jeffrey; 2. Frank M. Crosbie.

SENIOR COUNTERPOINT AND COMPOSITION.

HONOURS CERTIFICATE.—1. Helen Lyon Smith (*Medallist*); 2. Christina Struthers; 3. Agnes Johnston; 4. Margaret Fullarton Kennedy.

HISTORY OF MUSIC.

HONOURS CERTIFICATE.—1. David Millar Craig (*Medallist*); 2. Frank M. Crosbie; 3. Janet Jeffrey.

HONOURABLE MENTION CERTIFICATE.—4. Marion Agnes Maclean; 5. Anna W. Taylor.

MUSICAL ANALYSIS.

HONOURS CERTIFICATE.—1. Christina Struthers (*Medallist*); 2. Janet Jeffrey; 3. E. E. Dallas; 4. Helen Anderson.

HONOURABLE MENTION CERTIFICATE.—5. Marion T. Forbes.

FREDERICK NIECKS, *Professor.*

Preliminary Examination Papers for Degrees in Arts, Science, Law (B.L.), and Music.

ENGLISH.—FIRST PAPER.

SATURDAY, *26th September* 1896.—9 *to* 11 A.M.

FIVE *and not more than* FIVE *questions are to be answered.*
Questions 1, 2 *and* 6 *must be answered by all.*

1. Write an essay, from two to three pages long, on one of the following subjects :—

   (*a*) The Celtic (*i.e.* Welsh and Highland) character as portrayed by Shakespeare and Scott.

   (*b*) Moral courage.

   (*c*) The character and reign of Queen Elizabeth.

   (*d*) The pleasures and pains of athletics.

2. Paraphrase :—

> Great honours are great burdens, but on whom
> They 're cast with envy, he doth bear two loads,
> His cares must still be double to his joys
> In any dignity ; where if he err,
> He finds no pardon ; and for doing well
> A most small praise, and that wrung out by force.
> I speak thus, Romans, knowing what the weight
> Of the high charge you have trusted to me is ;
> Not that thereby I would with art decline
> The good or greatness of your benefit ;
> For I ascribe it to your singular grace,
> And vow to owe it to no title else,
> Except the Gods, that Cicero is your consul.

I have no urns, no dusty monuments,
No broken images of ancestors;
But for myself I have prepared this strength.

3. Give a general analysis of the following passage, indicating clearly the connection between the clauses: parse the words in italics:—

Yet should I try, the *uncontrollèd* worth
Of this pure cause would kindle my rapt spirits
To *such* a flame of sacred vehemence,
That dumb things would be moved *to sympathise*,
And the brute Earth would lend her nerves and shake,
Till all thy *magic* structures, reared so high,
Were shattered into heaps o'er thy false head.

4. Give the derivation and original meaning of *eight* of the following words: *assist*, *while*, *nostril*, *economy*, *chivalry*, *both*, *spinster*, *minstrel*, *brimstone*, *rhyme*.

5. In what different ways are the plural and the possessive case of nouns respectively indicated in modern English? What is peculiar about the following forms: *kine*, *riches*, *its*, *foremost*, *myself*?

6. Correct or improve the following sentences, giving reasons for the changes which you make:—

(*a*) One friend she had who would have rejoiced to have been of the least assistance to her.

(*b*) I will not state them in my own language, but in the language of one, the poetical charm of whose mind and style have perhaps a little overclouded his reputation as a political philosopher.

(*c*) Early in the following year the Fitzgeralds bought a place in the country, where they resided a good deal for the future.

(*d*) The only regret now left us is that the text of the Old Testament has not been given in full, as was so excellently done by Mr. Tischendorf in the case of the New.

SECOND PAPER.

SATURDAY, *26th September* 1896.—12 NOON *to* 2 P.M.

EIGHT, *and not more than* EIGHT, *questions are to be attempted. Of these* THREE *must be taken from Section A*, THREE *from Section B, and* TWO *from Section C.*

SECTION A.

1. (*a*) Give some account of *one* of the following works :—

The King's Quair, Edward II., Every Man in his Humour, The Rape of the Lock, Rokeby, Lothair, The Earthly Paradise, Silas Marner.

Or,

(*b*) Give some account of *two* of the following characters :—

Romeo, Sir John Falstaff, Beatrice, Tom Jones, Prometheus, Balfour of Burley, Becky Sharp, Romola.

2. What are the most striking features in the characters of Henry V., Simon Glover, and the Duke of Rothsay ?

3. Give as full an account as you can of the scene in *Henry V.*, in which Henry consults the Archbishop of Canterbury as to his claim to the throne of France, and replies to the Dauphin's message.

4. Describe fully the combat between the Highland clans in *The Fair Maid of Perth.*

5. Give the exact meaning of the following expressions :—

(*a*) "No sinister nor no awkward claim
Pick'd from the wormholes of long-vanished days."

(*b*) "let the brow o'erwhelm it
As fearfully as doth a galléd rock
O'erhang and jutty his confounded base
Swill'd with the wild and wasteful ocean."

(*c*) "Pray thee, corporal, stay ; the knocks are too hot ; and for mine own part I have not a case of lives ; the humour of it is too hot, that is the very plain-song of it."

(*d*) "Ring the bells backward. Cry and spare not, Saint Johnstone's hunt is up."

(*e*) "The old Kemp of Kinfauns."

(*f*) "I have forgotten my tallies, and will return in the skimming of a bowie."

6. How far do Shakespeare and Scott attempt to reproduce the life of past times in *Henry V.* and *The Fair Maid of Perth* respectively?

SECTION B.

7. Write a short life of Cardinal Beaton.

8. Write brief notes on *five* of the following: Battle of Brunanburh, Battle of Tinchebrai, Mise of Lewis, Ragman Roll, Black Death, the several Sieges of Roxburgh, Rising in the North, Battle of Sauchieburn, Præmunire, Danelagh.

9. Write brief notes on *five* of the following: Edgar Atheling, William the Lion, the Earl of Kildare, Simon de Montfort, Bishop Grosseteste, John of Gaunt, Duke Robert of Albany, the Protector Somerset, Dunstan, Sir Thomas More.

10. Sketch the reign and character of James V.

11. What was the effect of the dissolution of the Monasteries in England and Scotland respectively?

12. What part did ships play in the wars between England and Scotland?

SECTION C.

13. From what countries does Great Britain chiefly import (*a*) gold; (*b*) silver; (*c*) copper; (*d*) tin; (*e*) iron.

14. Describe South and Central Africa from the Cameroons and Mombassa to the Cape, sketching its political divisions, and mentioning the chief towns and natural features of each.

15. Write notes on *ten* of the following, specifying the positions of those you select: The Karun River, Gobi, Assuncion, South Georgia, Bucharest, Easter Islands, Van, Diego Suarez, Limoges, Lemberg, Saragossa, Ravenna, Lake Baikal, the Yellowstone.

16. Enumerate in order as they come, the chief ports, rivers, and headlands of South America, beginning at the Orinoco, and going round by Cape Horn to the Isthmus of Panama.

FIRST PAPER.

SATURDAY, *27th March* 1897.—9 *to* 11 A.M.

FIVE, *and not more than* FIVE, *questions are to be answered. Questions* 1, 2, *and* 6 *must be answered by all.*

1. Write an essay, from two to three pages long, on one of the following subjects:—

(*a*) The social condition of Rome as represented in *Coriolanus*.

(*b*) The character of Louis XI. of France, or of Clive.

(*c*) "To do a great right, do a little wrong."

2. Paraphrase:—

Such voluntary favours as our people
In duty aid us with, we never scattered
On cobweb parasites, or lavished out
In riot or a needless hospitality:
No undeserving favourite doth boast
His issues from our treasury; our charge
Flows through all Europe, proving us but steward
Of every contribution which provides
Against the creeping canker of disturbance.
Is it not rare, then, in this toil of state
Wherein we are embarked, with breach of sleep,
Cares, and the noise of trouble, that our mercy
Returns not thanks nor comfort? Still the West
Murmur and threaten innovation.
Whisper our government tyrannical,
Deny us what is ours, nay, spurn their lives,
Of which they are but owners by our gift.

3. Give a *general* analysis of the following passage, and parse the words in italics:—

> In that fair clime, the lonely herdsman, *stretched*
> On the soft grass, through *half* a summer's day,
> With music lulled his indolent repose;
> And, in some fit of weariness, *if* he,
> When his own breath was silent, chanced *to hear*
> A distant strain, *far* sweeter *than* the sounds
> Which his poor skill could make, his fancy fetched,
> *Even* from the blazing chariot of the sun,
> A beardless youth, who touched a golden lute,
> And filled the illumined groves with ravishment.

4. (*a*) Derive *eight* of the following words:—metaphor, wanton, apathy, couch, enemy, malady, enormous, prose, chair, paradox, eclipse, sedition.

Or, (*b*) Point out, and give the force of, the prefixes and the suffixes in the following words:—euthanasia, strange, bedazzle, syllable, aphelion, negotiate, poetaster, bliss, fruiterer, knowledge, integrate, absenteeism.

5. Give examples of nouns (*a*) used only in the plural; (*b*) plural in form, but construed as singular; (*c*) singular in form, but construed as plural; (*d*) having two plural forms differing in meaning; (*e*) having one plural form with two different meanings.

6. Correct, or improve, the following sentences, giving reasons for any changes you may make:—

(*a*) An ordinary reader would scarcely suppose that Shadwell, who is here meant by MacFlecknoe, was worth being chastised, and that Dryden, descending to such game, was like an eagle stooping to catch flies.

(*b*) Evelyn is one of those whose reputation, in his own day, was far higher than his fame or influence have since proved to be.

(*c*) Some there are, who, though they lead a single life, yet their thoughts do end with themselves, and account future times impertinences.

(*d*) Mr. Courthope does not try to extenuate or explain away Pope's moral delinquencies, but to put them in their proper place as parts of a very complex character.

SECOND PAPER.

SATURDAY, 27*th March* 1897.—12 NOON *to* 2 P.M.

EIGHT, *and not more than* EIGHT, *questions are to be attempted. Of these* THREE *must be taken from Section* A, *and of the* THREE, 2 *or* 6 *must be* ONE, THREE *from Section* B, *and* TWO *from Section* C.

SECTION A.

1. (*a*) Give some account of *one* of the following works:—
The Shepherd's Calendar, Euphues and his England, Samson Agonistes, Absalom and Achitophel, A Tale of a Tub, The Excursion, Old Mortality, Sartor Resartus.

Or,

(*b*) Give some account of *two* of the following characters:—
Griselda, Polonius, Cordelia, Jaques, Sir Roger de Coverley, Sir Charles Grandison, Andrew Fairservice, George Warrington.

2. What are the most striking features in the characters of Crèvecœur, Lady Blanche, and Philip Ray?

3. How does Scott in *Quentin Durward* represent the Scottish character?

4. Illustrate, by reference to passages or scenes from *The Princess* and *Enoch Arden*, Tennyson's powers of natural description.

5. Give a full account of *one* of the following:—

(*a*) The scene in which Coriolanus addresses the people in the forum, and is sentenced to banishment.

(*b*) The interview between Louis XI. and Martius Galeotti, in which Galeotti saves his life.

(*c*) The career and character of Dupleix.

6. Give the meaning and context of the following passages :—

(*a*) Let them pronounce the steep Tarpeian death,
Vagabond exile, flaying, pent to linger
But with a grain a day, I would not buy
Their mercy at the price of one fair word.

(*b*) Far as the portal-warding lion-whelp,
And peacock-yew tree of the lonely Hall,
Whose Friday fare was Enoch's ministering.

(*c*) For she that out of Lethe scales with man
The shining steps of Nature, shares with man
His nights, his days, moves with him to one goal,
Stays all the fair young planet in her hands,—
If she be small, slight-natured, miserable,
How shall men grow ?

(*d*) How now, ye porkers of Liège ! ye wallowers in the mud of the Maes ! Do ye dare to mate yourselves with the Wild Boar of Ardennes ?

(*e*) "Omichund," said Mr. Scrafton in Hindostanee, "the red treaty is a trick. You are to have nothing."

Section B.

7. Write a short account of the character and career of Archbishop Laud.

8. Write brief notes on *five* of the following :—Hampton Court Conference, Solemn League and Covenant, Declaration of Indulgence, Test Act, Pride's Purge, Battle of Philiphaugh, Treaty of Dover, Battle of Drumclog, Siege of Londonderry.

9. Write brief notes on *five* of the following :—Claverhouse, Shaftesbury, Pym, Clarendon, Danby, Monmouth, David Leslie, Ireton, Montrose, Jeffreys.

10. Write an account of the progress of events from the Battle of Naseby to the Battle of Dunbar.

11. Sketch the main incidents in the struggle between Presbyterianism and Episcopacy in Scotland during the seventeenth century.

12. What constitutional and social changes followed the Revolution of 1689?

SECTION C.

13. Describe the coast of Britain from Aberdeen to Hull, mentioning the chief ports in order, with the main trade of each.

14. Give an account of the physical geography of Australia, and of its political divisions and government.

15. Describe (or draw a map of) the basins of *three* of the following rivers; in each case indicating the position, and the historical or commercial importance of the principal towns:—Severn, Forth, St. Lawrence, Irrawady, Po, Elbe.

16. Give an account of the physical and geographical conditions that determine the temperature, rainfall, and productiveness of any place; and give examples to illustrate your answer.

LATIN—HIGHER STANDARD.

FIRST PAPER.

TUESDAY, 29*th September* 1896.—9 *to* 11 A.M.

I.—*An Embassy from King Antiochus.*

1. Translate:—

"Maximo semper animo," inquit Zeuxis Antiochi regis orator, "victis regibus populisque ignovistis; quanto id maiore et placatiore animo decet vos facere in hac victoria, quae vos dominos orbis terrarum fecit? Positis jam adversus omnes mortales certaminibus, haud secus quam deos consulere et parcere vos generi humano oportet." Iam antequam legati venirent, decretum erat, quid responderetur. Respondere Africanum

placuit; is in hunc modum locutus fertur: "Romani ex iis, quae in deum immortalium potestate erant, ea habemus, quae dii dederunt; animos, qui nostrae mentis sunt, eosdem in omni fortuna gessimus gerimusque; neque eos secundae res extulerunt nec adversae minuerunt. Eius rei, ut alios omittam, Hannibalem vestrum vobis testem darem, nisi vos ipsos dare possem. Postquam traiecimus Hellespontum, priusquam castra regia, priusquam aciem videremus, de pace vobis agentibus quas pares paribus ferebamus condiciones, easdem nunc victores victis ferimus. Europa abstinete; Asia omni, quae cis Taurum montem est, decedite."

The Village Festival.

2. Translate:—

State coronati plenum ad praesepe iuvenci:
Cum tepido vestrum vere redibit opus.
Rusticus emeritum palo suspendat aratrum:
Omne reformidat frigida volnus humus.
Vilice, da requiem terrae, semente peracta;
Da requiem, terram qui coluere, viris.
Pagus agat festum; pagum lustrate, coloni,
Et date paganis annua liba focis.
Placentur frugum matres, Tellusque Ceresque,
Farre suo gravidae visceribusque suis.
Officium commune Ceres et Terra tuentur;
Haec praebet causam frugibus, illa locum.
Consortes operis, per quas correcta vetustas,
Quernaque glans victa est utiliore cibo,
Frugibus immensis avidos satiate colonos,
Ut capiant fructus praemia digna sui.
Vos date perpetuos teneris sementibus auctus,
Nec nova per gelidas herba sit usta nives.

II.—Grammar.

3. (*a*) Conjugate the verbs: *negligo, dego, pervado, fido, occulo.*

(*b*) Form adjectives from : *vir*, *via*, *arbor*, *aestas*, *Venus*.

(*c*) Show the force of composition in *addisco*, *subirascor*, *condo*, *infamis*, *infectus*.

4. Show the meaning of the following cases :

(*a*) Romanae *dictionis* facti sunt. Longi *laboris* damnatus est.

(*b*) Sex *nobis* filii sunt. Decemviri *legibus scribendis* creati sunt.

(*c*) *Illud te* moneo. *Id temporis* abfui.

(*d*) Frame sentences showing case or cases used with *misereor*, *moderor*.

5. Explain why the subjunctive mood is used in the following sentences :—

(*a*) Sapientia est una, quae tristitiam ex animo *pellat*.

(*b*) *Fremant* omnes licet, dicam quod sentio.

(*c*) Dux impetum in fugientes fecit, antequam in unum colligi *possent*.

(*d*) Quemcunque lictor *prehendisset*, tribunus mitti iubebat.

(*e*) Ad Hannibalem redire noluit, quod iureiurando *solutus esset*.

SECOND PAPER.

TUESDAY, *29th September* 1896.—12 NOON *to* 2 P.M.

1. Translate into Latin :—

The native king had assumed an arrogance which could not be endured, and which was by no means warranted by his recent successes. Envoys had been sent by the governor of our province to bid him cease from plundering those tribes who were under English protection. He replied that he had conquered those tribes in war, and for twenty years had wasted their lands. "Why," he said, "have you come here? Is it to show that the British, when it suits their purpose, can exhibit the same disregard of treaties which they themselves are for ever casting up against the native tribes? This portion of Africa belongs to me, as the south belongs to you. As I do not

interfere with you in governing those territories which you have conquered, you ought not to interfere with me in the exercise of my rights. Go back to the place from which you have come; if you do not do so, you shall meet the same fate which has fallen on all who have faced me and my followers in the field of battle." When this answer became known, the indignation among the force was such that the officers would scarcely have been able to keep back their men had not peremptory orders been received from the governor forbidding all advance.

2. Translate into Latin :—

(*a*) I never visit him without returning home a wiser man.

(*b*) Since the enemy had unexpectedly appeared, what ought the general to have done?

(*c*) So far from my being angry with you, I do not even criticise your conduct.

(*d*) He said that if he had thought about the thing you speak of, he would not have done it.

FIRST PAPER.

TUESDAY, 30*th March* 1897.—9 *to* 11 A.M.

I. For Latin Prose :—

When the consul had ended, Catilina, with downcast looks and suppliant voice, begged the senate not too hastily to believe everything about him. He sprang (he said) from such a family, he had so lived from his youth up, that he might hope for every success. They could not think that he, a patrician, who like his ancestors had established high claims upon the people, could need the overthrow of the republic, whilst M. Tullius, an immigrant into the city of Rome, threw himself forward as its saviour. He was ready to proceed to further insults, when the whole senate interrupted him with a cry of indignation, calling him enemy and traitor. He rushed immediately out of the as-

sembly, addressed a few farewell words to his trustiest friends, to whom he promised an early return at the head of an army, and the same night set out with a few followers to the camp of Manlius. Even outside the capital he continued the game of deception, and wrote on his journey to the most distinguished men at Rome, that, a victim to hostile intrigues and calumnies, he was yielding to the force of circumstances, and was on his way to exile at Massilia. His confidants in Rome had spread the same rumour immediately after his departure.

II. Grammar.

1. *a.* Give chief parts of *ordior, sisto, lavo, como, cieo.*
   b. Parse *orveris, expergiscimini, ausis, sata, mementote.*
   c. Show by examples the force of the terminations *-bundus, -trum, -trix, -sco, -urio.*
2. *a.* Distinguish *praedico* and *praedīco, irrito* and *irrīto, plăcet* and *plācet, ăras* and *āras.*
   b. Translate and show the force of the cases:—
   Non erat *solvendo.* Duumviri *sacris faciundis.*
   Heres *ex asse.* *E republica.*
   Nihili te aestimo. Doctus *sermones* utriusque linguae.
3. *a.* Make sentences to show the use of *dum, priusquam, quin,* (1) with Indicative; (2) with Subjunctive.
   b. What is the force of the tense in:—
   Haec Kalendis Aprilibus *scribebam.*
   Quemcumque fugientem *viderant,* obtruncabant.
   Fuimus Troes, fuit Ilium.
   Si Mutinam expugnaverit, bellum *confecerit.*

SECOND PAPER.

Tuesday, 30*th March* 1897.—12 noon *to* 2 p.m.

I. For Unseen Translation:—

1. [*Metellus gives his army a chance to retrieve their defeat.*]
"Non equidem mihi cum exercitu meo loqui videor nec cum

Romanis militibus; corpora tantum atque arma sunt eadem. an, si eosdem animos habuissetis, terga vestra vidisset hostis, signa alicui manipulo aut cohorti abstulisset? adhuc caesis legionibus Romanis gloriabatur; vos illi hodierno die primum fugati exercitus dedistis decus." clamor inde ortus, ut veniam eius diei daret; ubi vellet deinde experiretur militum suorum animos. "ego vero experiar," inquit "milites, et vos crastino die in aciem educam, ut victores potius quam victi veniam impetretis quam petitis." cohortibus quae signa amiserant hordeum dari iussit centurionesque manipulorum, quorum signa amissa fuerant, destrictis gladiis discinctos destitui iussit et ut postero die omnes, equites pedites, armati adessent edixit. ita contio dimissa fatentium, iure ac merito sese increpitos neque illo die virum quemquam in acie Romana fuisse praeter unum ducem, cui aut morte satisfaciendum aut egregia victoria esset. postero die ornati armatique ad edictum aderant. imperator eos conlaudat pronuntiatque, a quibus orta pridie fuga esset cohortesque, quae signa amisissent, se in primam aciem inducturum: edicere iam sese, omnibus pugnandum ac vincendum esse et adnitendum singulis universisque, ne prius hesternae fugae quam hodiernae victoriae fama Romam perveniat.

2. [*Evander tells of his country's past.*]

Exim se cuncti divinis rebus ad urbem
perfectis referunt. ibat rex obsitus aevo.
miratur facilisque oculos fert omnia circum
Aeneas capiturque locis et singula laetus
exquiritque auditque virum monimenta priorum.
tum rex Euandrus, Romanae conditor arcis,
"haec nemora indigenae fauni nymphaeque tenebant
gensque virum truncis et duro robore nata,
quis neque mos neque cultus erat, nec iungere tauros
aut componere opes norant aut parcere parto,
sed rami atque asper victu venatus alebat.

primus ab aetherio venit Saturnus Olympo,
arma Iovis fugiens et regnis exul ademptis.
is genus indocile ac dispersum montibus altis
composuit legesque dedit Latiumque vocari
maluit, his quoniam latuisset tutus in oris.
aurea quae perhibent illo sub rege fuere
saecula. sic placida populos in pace regebat,
deterior donec paulatim ac decolor aetas
et belli rabies et amor successit habendi.

II. Sentences.

1. It is said that if this friend had not failed him, Clive would not have committed suicide.

2. Our fathers had the laudable custom of hearing both sides when a man was on trial.

3. You are a fool to expect us to believe such a strange story.

4. The more powerful you are, the more merciful should you show yourself.

5. Your sins will all be pardoned if only you repent of them.

LOWER STANDARD.

Monday, 28*th September* 1896.—9 *to* 12 noon.

I.

Leonidas at Thermopylae.

1. Translate:—

Dum Medi montem noctu ascendunt, vates Megistias quum victimas inspexisset, primus Graecis praedixit cum luce mortem iis adfuturam esse. Quoniam tantum periculi suberat, Graeci consilio convocato sententias dixerunt: alii e statione non exeundum esse, alii cedendum esse, quod hostes tantum multitudine superessent. Denique digressi alii ad suam quisque civitatem se receperunt, alii, ubi erant, manebant, sed hi quoque a Leonida dimissi sunt. Leonidas enim quum intellexisset

socios suos tardiores esse, neque animi ad dimicandum parati, ipse iis imperavit ut sibi consulerent; negavit autem sibi abeundum esse; si enim mansisset, magnum sui nomen futurum esse, neque fore ut Spartae salus periret. Spartanis enim ab Apolline responsum erat aut urbem Spartam a barbaris eversum iri, aut regem eorum interiturum esse.

Explain the cases: *periculi, consilio, multitudine, animi, Spartanis.* Why is *suberat* indicative, and *superessent* subjunctive?

II. Composition.

2. Translate into Latin:—

In the reign of Claudius a large portion of Britain was first conquered. The British chief who held out the longest and the most bravely against the Roman arms was Caractacus, king of the Silurians. After he and his people had for several years bravely resisted, at last he was defeated in a great battle and led a prisoner to Rome. When Caractacus saw that great and splendid city, he wondered that men, who had such wealth and grandeur at home, should come and meddle with him in his poor cottage in Britain. Claudius received him kindly and gave him his liberty. This conduct is much to his honour, as previously Roman generals had not been ashamed to butcher their gallant foes.

III. Grammar.

3. Give the gender, abl. sing., and gen. pl. of: *signifer, princeps, opus, supellex.*

4. Compare: *celer, multi, fortiter, prope;* and give the English for *quisque, uter, nondum, aliquamdiu.*

5. Conjugate the verbs: *seco, dimico, mordeo, aperio, consulo, vincio, evado, evanesco.*

6. Form:—

(*a*) 2nd sing. imperative of *ingredior.*

(*b*) 3rd sing. perf. subj. act. *disco.*

(*c*) 1st pl. fut. ind. pass. *nutrio.*
(*d*) 3rd pl. imp. subj. *nolo.*
(*e*) 2nd sing. pres. subj. pass. *terreo.*
(*f*) Fut. part. *nascor.*
(*g*) Fut. infin. act. *scribo.*
(*h*) Fut. infin. pass. *noceo.*

7. Explain the meaning of the following cases, and give an example of each :—

(*a*) Cognate Accusative.
(*b*) Dative of Advantage.
(*c*) Objective Genitive.
(*d*) Ablative of Separation.

IV. Sentences.

8. Translate into Latin :—

(*a*) Do you like this or that better ?
(*b*) We like the same things as other people do.
(*c*) I think little of him who is not ready to obey even his own father.
(*d*) I know that danger is near ; therefore I ask you to be ready.
(*e*) Whether he is assisted or not, he will be able to defend the town.

Monday, 29*th March* 1897.—9 A.M. *to* 12 noon.

I. Translate into English :—

[*A meeting between Perseus, son of Philip, king of Macedonia, and Roman ambassadors, headed by Marcius.*]

Post dies paucos ad constitutum locum venerunt. Magnus comitatus fuit regius, cum amicorum, tum satellitum turba stipante. Non minore agmine legati venerunt, et ab Larissa multis prosequentibus et legationibus civitatium quae convenerant *Larissam* et renuntiare domum certa quae *audissent* volebant. Inerat cura insita mortalibus *videndi* congredientes

nobilem regem et populi principis terrarum omnium legatos. Postquam in conspectu steterunt, dirimente amne, paullisper *internuntiando* cunctatio fuit, *utri* transgrederentur. Ioco Marcius cunctantes movit. "Minor," inquit, "ad maiorem et" (quod Philippo ipsi cognomen erat) "filius ad patrem transeat." Facile persuasum id regi est. Aliud deinde ambigebatur, cum quam multis transiret. Rex cum omni comitatu transire volebat: legati vel cum tribus venire iubebant, vel, si tantum agmen traduceret, obsides *daret* nihil fraudis fore in colloquio. Hippiam et Pantauchum, principes amicorum, obsides dedit. Salutatio non tanquam hostium, sed hospitalis ac benigna fuit; positisque sedibus consederunt. LIVY 42. 39.

Parse *videndi* and *utri*. Account for the case of *Larissam* and *internuntiando*, and for the mood of *audissent* and *daret*.

II. Translate into Latin:—

Lucius, the Roman general, who had taken Caius under his protection as his slave, was the first who spoke to the king. He was a man of high courage and noble dignity, and this was his speech to the king:—"I hear that you never pardon your prisoners, but condemn them all to death. I am a Roman, and will suffer death with a Roman's fortitude. But there is one thing which I do entreat." Then, bringing Caius before the king, "This boy," said he, "is a Briton born. He is my slave. Never master had a slave so kind, so diligent on all occasions, so true. He hath done no Briton wrong, though he hath served a Roman. Save him, if you spare no one else." The king looked earnestly on Caius, and said: "I know not why or wherefore I say, Live, boy; but I give you your life."

III.—GRAMMAR.

1. Decline the singular of *domus, iusiurandum, requies*. Give genitive singular, gender, and meaning of *decus, foedus, plus, tellus, tribus, virus*.

2. Give the genitive singular masculine, accusative plural masculine, and meaning of *impiger, liber, mortifer, neuter, pauper, pedester.* Give Latin for *the half of the day, three-fourths of the army.*

3. Show by one example of each, the mode of formation of the future participle active, and of the gerundive. Conjugate, giving meanings: *consuluerunt, insita, iubebant: accesso, lavo, morior, orior, uro.*

4. Distinguish *ille, iste,* and *tuus*; *uter, uterque, utercis.* Write short sentences, translating them, to show the case-construction of *doceo, fungor, interest, taedet.*

IV.—Sentences.

Translate into Latin:—

1. He sent to ask where he was to go.

2. I would give something not to go on this journey.

3. Such a thing is too trifling to make any difference.

4. After the consul had departed, all expected that the conference would be broken up.

GREEK—Higher Standard—first paper.

Wednesday, 30*th September* 1896.—9 *to* 11 A.M.

1. Translate:—

καὶ πάθος τοῦτο Ἑλληνικὸν μεγέθει τε τῆς ἁλούσης πόλεως καὶ ὀξύτητι τοῦ ἔργου, οὐχ ἥκιστα δὲ καὶ τῷ παραλόγῳ ἔς τε τοὺς παθόντας καὶ τοὺς δράσαντας, οὐ μεῖόν τι τοὺς ἄλλους Ἕλληνας ἢ καὶ αὐτοὺς τοὺς μετασχόντας τοῦ ἔργου ἐξέπληξε. τὰ μὲν γὰρ περὶ Σικελίαν Ἀθηναίοις ξυνενεχθέντα, εἰ καὶ πλήθει τῶν ἀπολομένων οὐ μείονα τὴν ξυμφορὰν τῇ πόλει ἤνεγκεν, ἀλλὰ τῷ τε πόρρω ἀπὸ τῆς οἰκείας διαφθαρῆναι αὐτοῖς τὸν στρατόν, καὶ τὸν πολὺν ξυμμαχικὸν μᾶλλον ἢ οἰκεῖον ὄντα, καὶ τῷ τὴν πόλιν αὐτοῖς περιλειφθῆναι, ὡς καὶ ἐς ὕστερον ἐπὶ πολὺ τῷ πολέμῳ ἀντισχεῖν Λακεδαιμονίοις τε καὶ τοῖς ξυμμάχοις καὶ μεγάλῳ βασιλεῖ πολε-

μοῦντας, οὔτε αὐτοῖς τοῖς παθοῦσιν ἴσην τὴν αἴσθησιν τῆς ξυμφορᾶς προσέθηκεν, οὔτε τοῖς ἄλλοις Ἕλλησι τὴν ἐπὶ τῷ πάθει ἔκπληξιν ὁμοίαν παρέσχε. καὶ τὸ ἐν Αἰγὸς ποταμοῖς ἆθλις Ἀθηναίων παῖσμα ναυτικόν τε ἦν καὶ ἡ πόλις οὐδὲν ἄλλο ὅ, τι μὴ τῶν μακρῶν τειχῶν καθαιρέσει καὶ νεῶν τῶν πολλῶν παραδόσει καὶ στερήσει τῆς ἀρχῆς ἐς ταπεινότητα ἀφικομένη τὸ τε σχῆμα τὸ πάτριον ὕμως ἐφύλαξε καὶ τὴν δύναμιν οὐ διὰ μακροῦ τὴν πάλαι ἀνέλαβεν.

2. *One* of the following passages :—

(*a*) ὦ τέκν', ἔοιγμεν ναυτίλοισιν, οἵτινες
χειμῶνος ἐκφυγόντες ἄγριον μένος
ες χεῖρα[1] γῇ συνῆψαν, εἶτα χερσόθεν
πνοαῖσιν ἠλάθησαν ἐς πόντον πάλιν.
οὕτω δὲ χἠμεῖς τῆσδ' ἀπωθούμεσθα γῆς,
ἤδη πρὸς ἀκταῖς ὄντες ὡς σεσωσμένοι.
οἴμοι· τί δῆτ' ἔτερψας ὦ τάλαινά με
ἐλπὶς τότ', οὐ μέλλουσα διατελεῖν χάριν;
ὦ παῖδες, ὑμῖν δ' οὐκ ἔχω τί χρήσομαι.
ποῖ τρεψόμεσθα; τίς γὰρ ἄστεπτος θεῶν;
ὀλούμεθ', ὦ τέκν', ἐκδοθησόμεσθα δή.
ἀλλ' οἶσθ' ὅ μοι σύμπραξον; οὐχ ἅπασα γὰρ
πέφευγεν ἐλπὶς τῶνδέ μοι σωτηρίας.
ἔμ' ἔκδος Ἀργείοισιν ἀντὶ τῶνδ', ἄναξ,
καὶ μήτε κινδύνευε σωθήτω τέ μοι
τέκν'· οὐ φιλεῖν δεῖ τὴν ἐμὴν ψυχὴν· ἴτω.

(*b*) τὸν δ' Ἑλένη ταν̓ύπεπλος ἀμείβετο, δῖα γυναικῶν·
"οὗτος δ' Αἴας ἐστὶ πελώριος, ἕρκος Ἀχαιῶν·
Ἰδομενεὺς δ' ἑτέρωθεν ἐνὶ Κρήτεσσι, θεὸς ὥς,
ἕστηκ'· ἀμφὶ δέ μιν Κρητῶν ἀγοὶ ἠγερέθονται.
πολλάκι μιν ξείνισσεν Ἀρηΐφιλος Μενέλαος
οἴκῳ ἐν ἡμετέρῳ, ὁπότε Κρήτηθεν ἵκοιτο.
νῦν δ' ἄλλους μὲν πάντας ὁρῶ ἑλίκωπας Ἀχαιούς,
οὕς κεν ἐῢ γνοίην, καὶ τοὔνομα μυθησαίμην·

[1] ἐς χεῖρα = close.

δοιὼ δ' οὐ δύναμαι ἰδέειν κοσμήτορε λαῶν,
Κάστορά θ' ἱππόδαμον καὶ πὶξ ἀγαθὸν Πολυδεύκεα,
αὐτοκασιγνήτω, τώ μοι μία γείνατο μήτηρ.
ἦ οὐχ ἑσπέσθην Λακεδαίμονος ἐξ ἐρατεινῆς,
ἦ δεῦρο μὲν ἕποντο νέεσσ' ἔνι ποντοπόροισιν,
νῦν αὖτ' οὐκ ἐθέλουσι μάχην καταδύμεναι ἀνδρῶν,
αἴσχεα δειδιότες καὶ ὀνείδεα πόλλ', ἅ μοί ἐστιν."

SECOND PAPER

WEDNESDAY, *30th September* 1896.—12 NOON *to* 2 P.M.

I.—SENTENCES.

1. The king asked how many soldiers we could supply in the event of the country being invaded.

2. The wretched inhabitants begged the general not to leave the city until he saw that its affairs were in a better condition.

3. We had scarcely crossed the river when the Argives attacked us, and had not three hundred of the allies come up at the moment we should have been cut off to a man.

4. Demosthenes told his countrymen that they could not set out too soon to the relief of their friends. "The greater the fame of your ancestors," he said, "the deeper will be your disgrace if you abandon your benefactors."

5. The enemy are too strong for us to meet in the open field: we must make a truce (*σπένδεσθαι*) with them on condition that we surrender those who have been most to blame for the revolt (*ἐπανάστασις*).

II.—GRAMMAR.

1. Give the principal parts of: *χαίρω, ἔννυμι, καθαιρῶ, καθαίρω, ὀφλισκάνω, κεράννυμι, ὄμνυμι, ἀνδάνω.*

2. Distinguish *γεύειν, γεύεσθαι; ἄρχειν πολέμου, ἄρχεσθαι πολέμου; ἐπίσταμαι ποιεῖν, ἐπίσταμαι ποιῶν; ὀλοῦμαι οὐ μαθών, ὀλοῦμαι μὴ μαθών; οὐκ ἂν γένοιτο ταῦτα, μὴ γένοιτο ταῦτα.*

3. Explain the syntax of (*a*) ὅπως οὖν ἔσεσθε ἀγαθοὶ ἄνδρες, (*b*) μὴ οὐ τοῦτο ἀληθὲς ᾖ, (*c*) αἰσχρόν ἐστι μὴ οὐ προθυμεῖσθαι, (*d*) ὑπερφυῶς ὡς ἀληθῆ λέγεις, (*e*) εἰ τοὺς θανόντας οὐκ ἐᾷς θάπτειν.

4. Classify the following genitives: (*a*) φεύγειν φόνου, (*b*) τῆς γῆς ἕτερον, (*c*) ὀκτὼ σταδίων τεῖχος, (*d*) ζηλῶ σε τοῦ νοῦ.

5. Give, with examples, three meanings of ἐπὶ and three of ὑπό in composition.

FIRST PAPER.

WEDNESDAY, 31*st March* 1897.—9 *to* 11 A.M.

I. Translate:—

ἔτι γὰρ ταπεινῆς οὔσης τῆς Ἑλλάδος ἦλθον εἰς τὴν χώραν ἡμῶν Θρᾷκες μὲν μετ' Εὐμόλπου τοῦ Ποσειδῶνος, Σκύθαι δὲ μετ' Ἀμαζόνων τῶν Ἄρεως θυγατέρων, οὐ κατὰ τὸν αὐτὸν χρόνον ἀλλὰ καθ' ὃν ἑκάτεροι τῆς Εὐρώπης ἐπῆρχον, μισοῦντες μὲν ἅπαν τὸ τῶν Ἑλλήνων γένος, ἰδίᾳ δὲ πρὸς ἡμᾶς ἐγκλήματα ποιησάμενοι, νομίζοντες ἐκ τούτου τοῦ τρόπου πρὸς μίαν μὲν πόλιν κινδυνεύσειν, ἁπασῶν δ' ἅμα κρατήσειν. οὐ μὴν κατώρθωσαν, ἀλλὰ πρὸς μόνους τοὺς προγόνους τοὺς ἡμετέρους συμβαλόντες ὁμοίως διεφθάρησαν, ὥσπερ ἂν εἰ πρὸς ἅπαντας ἀνθρώπους ἐπολέμησαν. δῆλον δὲ τὸ μέγεθος τῶν κακῶν τῶν γενομένων ἐκείνοις· οὐ γὰρ ἄν ποθ' οἱ λόγοι περὶ αὐτῶν τοσοῦτον χρόνον διέμειναν, εἰ μὴ καὶ τὰ πραχθέντα πολὺ τῶν ἄλλων διήνεγκεν. λέγεται δ' οὖν περὶ μὲν Ἀμαζόνων, ὡς τῶν μὲν ἐλθουσῶν οὐδεμία πάλιν ἀπῆλθεν, αἱ δ' ὑπολειφθεῖσαι διὰ τὴν ἐνθάδε συμφορὰν ἐκ τῆς ἀρχῆς ἐξεβλήθησαν, περὶ δὲ Θρᾳκῶν, ὅτι τὸν ἄλλον χρόνον ὅμοροι προσοικοῦντες ἡμῖν τοσοῦτον διὰ τὴν τότε στρατείαν διέλιπον ὥστ' ἐν τῷ μεταξὺ τῆς χώρας ἔθνη πολλὰ καὶ γένη παντοδαπὰ καὶ πόλεις μεγάλας κατοικισθῆναι.

II. Translate:—

ὦ χαῖρε, πρέσβυ, χαῖρε καὶ δίδασκέ μοι
τοιούσδε τούσδε παῖδας εἰς τὸ πᾶν σοφοὺς
ὥσπερ σύ, μηδὲν μᾶλλον· ἀρκέσουσι γάρ.
πειρῶ δὲ σῶσαι μὴ θανεῖν πρόθυμος ὤν·

σοὶ παῖδές ἐσμεν· σαῖν χεροῖν τεθράμμεθα.
ὁρᾷς δὲ κἀμὲ τὴν ἐμὴν ὥραν γάμου
διδοῦσαν ἀντὶ τῶνδε κατθανουμένην.
ὑμεῖς δ' ἀδελφῶν ἡ παροῦσ' ὁμιλία,
εὐδαιμονοῖτε, τήν τ' ἔσω γραῖαν δόμων
τιμῶτε πατρὸς μητέρ' Ἀλκμήνην ἐμοῦ
ξένους τε τούσδε. κἂν ἀπαλλαγὴ πόνων
καὶ νόστος ὑμῖν εὑρεθῇ ποτ' ἐκ θεῶν,
μέμνησθε τὴν σώτειραν ὡς θάψαι χρεών.
μάλιστά τοι δίκαιον· οὐ γὰρ ἐνδεὴς
ὑμῖν παρέστην, ἀλλὰ προύθανον γένους.
τάδ' ἀντὶ παίδων ἐστί μοι κειμήλια
καὶ παρθενείας, εἴ τι δὴ κάτω χθονός.

Or,

Ὣς ἄρα μιν Πριάμοιο προσηύδα φαίδιμος υἱὸς,
Λισσόμενος ἐπέεσσιν· ἀμείλικτον δ' ὄπ' ἄκουσε·
Νήπιε, μή μοι ἄποινα πιφαύσκεο, μηδ' ἀγόρευε·
Πρὶν μὲν γὰρ Πάτροκλον ἐπισπεῖν αἴσιμον ἦμαρ,
Τόφρα δέ μοι πεφιδέσθαι ἐνὶ φρεσὶ φίλτερον ἦε
Τρώων, καὶ πολλοὺς ζωοὺς ἕλον, ἠδὲ πέρασσα·
Νῦν δ' οὐκ ἔσθ', ὅστις θάνατον φύγοι, ὅν κε θεός γε
Ἰλίου προπάροιθεν ἐμῇς ἐν χερσὶ βάλῃσι,
Καὶ πάντων Τρώων, πέρι δ' αὖ, Πριάμοιό γε παίδων.
Ἀλλὰ, φίλος, θάνε καὶ σύ· τίη ὀλοφύρεαι οὕτως;
Κάτθανε καὶ Πάτροκλος, ὅπερ σέο πολλὸν ἀμείνων.
Οὐχ ὁράᾳς, οἷος κἀγὼ, καλός τε, μέγας τε,
Πατρὸς δ' εἴμ' ἀγαθοῖο, θεὰ δέ με γείνατο μήτηρ·
Ἀλλ' ἐπί τοι καὶ ἐμοὶ Θάνατος καὶ Μοῖρα κραταιὴ
Ἔσσεται, ἢ ἠὼς, ἢ δείλη, ἢ μέσον ἦμαρ,
Ὁππότε τις καὶ ἐμεῖο Ἄρει ἐκ θυμὸν ἕληται,
Ἢ ὅγε δουρὶ βαλὼν, ἢ ἀπὸ νευρῆφιν ὀϊστῷ.

SECOND PAPER.

WEDNESDAY, 31*st March* 1897.—12 NOON *to* 2 P.M.

I.—SENTENCES.

1. The messengers reported that fewer arms had been found in the camp than might have been expected from the number of the enemy.

2. The king would give anything to destroy the army of the Lacedaemonians, believing that he would thereby *strike such terror* (*ἐκπλήσσειν*) *into* the rest of the Greeks that no one would oppose him further.

3. If our allies had not entered the city unobserved by the Athenians, it would have been necessary for us to effect our retreat with all speed.

4. To our appeals for help the general replied that he did not know himself where to turn to: for Philip was more powerful than ever, and had ravaged the country more severely than any other single person.

5. Would that our ships had never sailed to Sicily! Our city would not have been humbled (*ταπεινόω*), and we should have gained the advantage over the Lacedaemonians in the war.

II.—GRAMMAR.

1. Give the principal parts of:—*ἁλίσκομαι, βλώσκω, δάκνω, καίω, λαγχάνω, ὀρύσσω, πίμπλημι, φθάνω.*

2. Distinguish *μισθοῦν, μισθοῦσθαι; λανθάνειν, λανθάνεσθαι; διαφέρειν τινος, διαφέρειν τινι; μεμνῆσθαι, μνησθῆναι; αἰσχύνομαι ποιεῖν, αἰσχύνομαι ποιῶν.*

3. Translate and explain the syntax of—(*a*) *οὐδενὶ ὅτῳ οὐκ ἀπεκρίνατο*; (*b*) *πόλλ' ἂν ἔχων εἰπεῖν, σιωπῶ*; (*c*) *ἄξιον ἦν παρεῖναι ἵνα ἥκουσας*; (*d*) *ἄχρηστος γυναιξί, μὴ ὅτι ἀνδρασι*; (*e*) *βούλει οὖν αὐτὸν πείθωμεν.*

4. Give the Greek for:—At sunset; You are come in good time; To my thinking; What made you do it?

5. Explain the force of the prepositions in *ἀναχωρεῖν, ἀναβαίνειν, ἀνάγειν; ἀποβλέπειν, ἀποδιδόναι, ἀποκαλεῖν; ἐπιγίγνεσθαι, ἐπιβουλεύειν, ἐπιγαμία.*

Lower Standard.

Saturday, 26*th September* 1896.—3 *to* 6 p.m.

I. Translate:—

Ἔπεμψεν ἡμᾶς, ὦ ἄνδρες στρατιῶται, ἡ τῶν Σινωπέων πόλις, ἐπαινέσοντάς τε ὑμᾶς ὅτι νικᾶτε Ἕλληνες ὄντες βαρβάρους, ἔπειτα δὲ καὶ ξυνησθησομένους ὅτι διὰ πολλῶν τε καὶ δεινῶν, ὡς ἡμεῖς ἀκούομεν, πραγμάτων σεσωσμένοι πάρεστε. Ἀξιοῦμεν δὲ Ἕλληνες ὄντες καὶ αὐτοὶ ὑφ' ὑμῶν ὄντων Ἑλλήνων ἀγαθόν μέν τι πάσχειν, κακὸν δὲ μηδέν· οὐδὲ γὰρ ἡμεῖς ὑμᾶς οὐδέν πώποτε κακῶς ἐποιήσαμεν. Κοτυωρῖται δὲ οὗτοι εἰσὶ μὲν ἡμέτεροι ἄποικοι, καὶ τὴν χώραν ἡμεῖς αὐτοῖς ταύτην παραδεδώκαμεν, βαρβάρους ἀφελόμενοι· διὸ καὶ δασμὸν[1] ἡμῖν φέρουσιν οὗτοι τεταγμένον· ὥστε ὅ,τι ἂν τούτους κακὸν ποιήσητε ἡ Σινωπέων πόλις νομίζει πάσχειν. νῦν δὲ ἀκούομεν ὑμᾶς εἴς τε τὴν πόλιν βίᾳ παρεληλυθότας ἐνίους σκηνοῦν ἐν ταῖς οἰκίαις, καὶ ἐκ τῶν χωρίων λαμβάνειν ὧν ἂν δέησθε οὐ πείθοντας. ταῦτ' οὖν οὐκ ἀξιοῦμεν· εἰ δὲ ταῦτα ποιήσετε, ἀνάγκη ἡμῖν καὶ Κορύλαν καὶ Παφλαγόνας καὶ ἄλλον ὅντινα ἂν δυνώμεθα φίλον ποιεῖσθαι.

[1] *δασμόν* = tribute.

II.—Grammar.

1. Parse and give the principal parts of: *συνησθησομένους, ἀφελόμενοι.*

2. Give the genitive singular and dative plural of: *ἀστήρ, κύων, θρίξ, οὖς, ὕδωρ, πῦρ, χείρ, δόρυ, μάρτυς, πούς, λέων, ναῦς.*

3. Give the nom. sing. masc. of the comparative degree of: *πορφυροῦς, ἁπλοῦς, ἐπιλήσμων, ἐπίχαρις, καλός, κυδρός, λάλος, ἐρρωμένος.*

4. Give the principal parts of: *ἁμαρτάνω, δάκνω, κάμνω, λαγχάνω, πίνω, τείνω.*

5. Write :—

(*α*) The infinitive perfect middle or passive of: *σπένδω, φαίνω, πράττω, πέμπω, δείκνυμι, σπάω.*

(*β*) The 3rd plur. imperf. indic. of : *εἰμί, εἶμι, ἴημι, φημί, οἶδα, ἵστημι, ἔπομαι, ἐπίσταμαι.*

(*γ*) The 3rd sing. 2nd aor. opt. act. of : *γιγνώσκω, δύω, δίδωμι, αἱρέω, ἔρχομαι, ἐσθίω.*

6. Distinguish *σφῷν, σφῶν ; αὐτοί, αὑτοί ; πόσος, ὅσος ; τιθείς, τεθείς ; τίθης, τιθῇς ; φίλει, φιλεῖ.*

7. Translate : *περὶ πολλοῦ ποιεῖσθαι ; πρὸς ταῦτα ; πρὸς τούτοις ; ἀνὰ κράτος ; ἐπὶ τοῖσδε.*

III.—Sentences.

(1) Do not lay waste the whole country.

(2) We must all bear what comes from the gods.

(3) We shall prosper if we do our duty.

(4) But for you, we should have perished.

(5) We were ordered to march as quickly as possible.

Saturday, 27*th March* 1897.—3 *to* 6 p.m.

1. Translate :—

Ἦν δέ τις Ἀπολλοφάνης Κυζικηνός, ὃς καὶ Φαρναβάζῳ ἐτύγχανεν ἐκ παλαιοῦ ξένος ὢν καὶ Ἀγησιλάῳ κατ' ἐκεῖνον τὸν χρόνον ξένος ἐγένετο. οὗτος οὖν εἶπε πρὸς τὸν Ἀγησίλαον, ὡς οἴοιτο συναγαγεῖν αὐτῷ ἂν εἰς λόγους περὶ φιλίας Φαρνάβαζον. ὡς δ' ἤκουσεν αὐτοῦ, σπονδὰς λαβὼν καὶ δεξιὰν παρὴν ἄγων τὸν Φαρνάβαζον εἰς συγκείμενον χωρίον, ἔνθα δὴ Ἀγησίλαος καὶ οἱ περὶ αὐτὸν τριάκοντα χαμαὶ ἐν πόᾳ[1] τινὶ κατακείμενοι ἀνέμειναν. ὁ δὲ Φαρνάβαζος ἧκεν ἔχων στολὴν πολλοῦ χρυσοῦ ἄξιον. ὑποτιθέντων δὲ αὐτῷ τῶν θεραπόντων ῥαπτά,[2] ἐφ' ὧν καθίζουσιν οἱ Πέρσαι μαλακῶς, ᾐσχύνθη ὁρῶν τὸν Ἀγησίλαον· ἐκάθητο οὖν καὶ αὐτὸς ὥσπερ εἶχε χαμαί. καὶ πρῶτον μὲν ἀλλήλους χαίρειν προσεῖπον, ἔπειτα τὴν δεξιὰν προτείναντος τοῦ Φαρναβάζου ἀντιπροὔτεινε καὶ ὁ Ἀγησίλαος.

μετὰ δὲ τοῦτο ἤρξατο λόγον ὁ Φαρνάβαζος· καὶ γὰρ ἦν πρεσβύτερος· Ὦ Ἀγησίλαε καὶ πάντες οἱ παρόντες Λακεδαιμόνιοι, ἐγὼ ὑμῖν, ὅτε τοῖς Ἀθηναίοις ἐπολεμεῖτε, φίλος καὶ σύμμαχος ἐγενόμην, καὶ τὸ μὲν ναυτικὸν τὸ ὑμέτερον χρήματα παρέχων ἰσχυρὸν ἐποίουν, ἐν δὲ τῇ γῇ αὐτὸς ἀπὸ τοῦ ἵππου μαχόμενος μεθ' ὑμῶν εἰς τὴν θάλατταν κατεδίωκον τοὺς πολεμίους. τοιοῦτος δὲ γενόμενος νῦν οὕτω διάκειμαι ὑφ' ὑμῶν, ὥστ' οὐδὲ δεῖπνον ἔχω ἐν τῇ ἐμαυτοῦ χώρᾳ, εἰ μή τι ὧν ἂν ὑμεῖς λίπητε συλλέξομαι, ὥσπερ τὰ θηρία.

Xen. *Hellenica*, IV. i. 29-33.

[1] *πόα* = grass. [2] *ῥαπτά* = rugs.

II.—Grammar.

1. Give accusative singular and dative plural of *τυραννίς, τριήρης, νομοθέτης, Δωριεύς, εἰκών, πέλεκυς, τέρας, ψῦχος, ταχύτης, μάρτυς, δένδρον, οἶς.*

2. Compare *βαθύς, εὐνοῦς, ἡσυχῶς, πρωΐ.* Give datives, singular and plural (all genders), of *πᾶς, ἵλεως, λύσας, διδούς.* Give Greek equivalents of *quantus* (*how great?*), *qualis* (*of what kind?*), *quando* (*when?*), *quo* (*whither?*).

3. Give 1st pers. sing. indic. mood of the future, aorist, perfect active, and perfect passive, of *πίπτω, ἁμαρτάνω, γιγνώσκω, παρατρέχω, ἀπόλλυμι, νομίζω, πίμπλημι, ῥέω.*

4. Form (*a*) 3rd pers. sing. and pl. imperf. indic. active of
δηλόω, ὁράω, ἀφίστημι, οἰκοδομέω.
(*b*) 2nd pers. sing. and pl. perf. imperative passive of
θύω, φαίνω, πειράω, ζεύγνυμι.
(*c*) 2nd aor. inf. and participle active of
βαίνω, τυγχάνω, πείθω, ἐσθίω.

5. Distinguish *ἦσαν* and *ἔασαν*, *ὄντος* and *ὄντος*, *τῷ* and *τῳ*, *ἵστη* and *ἱστῇ*.

6. Translate *μεῖζον ἢ κατ' ἄνθρωπον, ζῆν κατὰ τοὺς νόμους, ἐπ' ἐμοῦ ἐγένετο, πάντες ἐπί σοι ἐσμέν.*

III.—Sentences.

1. Don't tell him that you once were rich.
2. I will not go away unless you bid me.
3. We all know that this wall was made by Balbus.
4. The strangers asked him who he was.
5. May all perish who do such deeds.

MATHEMATICS.

Intermediate and Higher Standards.

FIRST PAPER.

THURSDAY, 1*st October* 1896.—9 *to* 11 A.M.

Candidates may obtain FULL marks by doing correctly about two thirds of the questions in each section of this paper. But the Examiners may reject a candidate who shows exceptional weakness in any of the sections A, B, C.

The pass mark for Intermediate Candidates is fixed with reference to the total number of marks assigned to questions which fall under the syllabus of the Intermediate Standard; but such Candidates will receive credit for any question they may answer.

A.

1. A square piece of steel half an inch thick weighs 4·54 ounces. Find the length of the side of the square, a cubic foot of steel weighing 490 lbs.

2. A retail dealer sells for 8s. 4d. an article whose production costs 5s. 4d. If he makes 25 per cent. profit, what is the producer's percentage of profit?

The producer continues to sell at the same price after a fall of 5 per cent. in the cost of production: what percentage does he then make?

3. If p, q, r, s are in proportion, show that—

$$\frac{p^3r}{qs}+\frac{2pr^2}{s}+\frac{prs}{q}=\left(\frac{p^2}{q}+r\right)^2.$$

4. Factorise—

(i.) $x^2+3x+1+2xy+1+3y+y^2$.

(ii.) $a^6-8b^6+7a^3b^3$.

5. Solve $4x^2+3xy-2y=0$, $3x^2+4xy-7x-5y=0$.

6. What relation exists between the coefficients of the quadratic expression $ax^2+2bx+c$ if $px+q$ is a factor?

Given that x^2+x+a and ax^2+x+1 have a common factor, determine it.

7. Prove that $a\,(b-c)=ab-ac$ where a, b, c are positive integers and b greater than c. Extend your proof to cases where a, b, c are any integers positive or negative.

B.

8. Show that if the square on one side of a triangle has an area equal to the sum of the areas of the squares on the other sides the triangle is right angled.

Give the sides of the smallest right angled triangle you can, whose sides are multiples of a foot: deduce from this a construction for a right angle.

9. Inscribe in a given circle a triangle equiangular to a given triangle.

If O be the centre of the inscribed circle of the triangle ABC, P the centre of the escribed circle, touching the side AB between A and B, then the angles OAP, OBP are right.

10. The sides about the equal angles of equal and equiangular parallelograms are reciprocally proportional.

If the angle A is one-third of a right angle, find the ratio of the parallelogram $ABCD$ to the rectangle $AB\cdot BC$.

11. Prove that any two straight lines, meeting three parallel planes, are divided by them in the same ratio.

Show that any two diagonals of a rectangular parallelepiped intersect and bisect one another.

C.

12. Find the value of—

$$\frac{\sin A \sin B \sin C\,(\cos A+\cos B+\cos C)}{\cos A \cos B \cos C\,(\sin A+\sin B+\sin C)} \times (\tan A+\tan B+\tan C)$$

$(\times \cot A+\cot B-\cot C)$; when $A=30°$, $B=60°$, $C=45°$.

13. Prove geometrically that $\sin 2\theta$ is less than $2 \sin \theta$, θ being less than 45°.

14. Solve the equation—

$$\cos^2\theta+\cos\theta \sin\theta=1.$$

15. Express the cosine of an angle of a triangle in terms of the lengths of the sides.

SECOND PAPER.

THURSDAY, 1*st October* 1896.—12 NOON *to* 2 P.M.

A.

1. A loss of $2\frac{1}{2}$ per cent. results from selling cloth at 4s. $0\frac{3}{4}$d. a yard. Would there be a gain or a loss, and of how much per cent., by selling it at 4s. $1\frac{3}{4}$d. a yard?

2. Divide ·03 by ·007, and ·02 by ·0045—subtract the smaller quotient from the larger, and give the answer both as a vulgar fraction and as a decimal.

3. Simplify $\dfrac{2}{x^2-3x+2}+\dfrac{2}{x^2-x-2}+\dfrac{1}{1-x^2}$.

4. Show that $ax^2+bx+c=0$, and $cx^2+bx+a=0$ have reciprocal roots, and that the sum of the squares of all the roots is $(b^2-2ac)\left(\dfrac{1}{a^2}+\dfrac{1}{c^2}\right)$.

5. Find the relations that must subsist between a, b, c so that $x^4+ax^3+bx^2+cx+1$ may be a complete square as regards x.

6. Find all the values of x for which

$$x^2+x+\frac{12}{x^2+x}=8.$$

7. Solve $x^2-3xy+y^2+1=0$, $3x^2-xy+3y^2=13$.

8. A man starts for a walk between 3 and 4, when the hour and minute hands of his watch are exactly together, and stops between 4 and 5, when they are exactly opposite each other. How long did he walk?

9. Show that x^n-a^n is always divisible by $x-a$ when n is a positive integer, and that x^n+a^n is never divisible by $x+a$ if n is an even integer.

B.

10. On a given straight line construct a segment of a circle containing an angle equal to a given angle.

On a given base describe a triangle with a given vertical angle so that the sum of the squares on its sides shall be equal to a given square.

11. Show how to inscribe a regular pentagon in a given circle.

Show that each of the points where each diagonal is intersected by the others divides it so that the retangle under the whole diagonal and the smaller part, is equal to the square on the larger.

12. Show that triangles which are equiangular to each other have the sides about equal angles proportional. Is this statement complete?

If the angles B and E in the triangles ABC, DEF are equal, and if the sides about these angles are both proportional and reciprocally proportional, find the relation between the sides.

13. If AB, AC, AD in different planes make a solid angle, show that the sum of the angles BAC, CAD, DAB is less than 4 right angles.

If these lines are cut by two parallel planes, show that the two triangles made by joining the points of section in each plane are similar.

C.

14. A flagstaff is on the top of a tower. At 35 feet from its

base the elevation of the top of the flagstaff is 60°, and the elevation of the top of the tower is 45°. Find the height of the flagstaff.

15. Find the sine and the tangent of an angle of 15°.

16. Show that $\frac{\sin A+\sin 2A}{1+\cos A+\cos 2A}=\tan A$,

and $\frac{\cos A-\cos 3A}{\sin 3A-\sin A}=\tan 2A$.

17. If $a=64{\cdot}28$ $b=75{\cdot}34$. $A=36^\circ\ 25'$. $\log\sin A=9{\cdot}7735$. $\log\sin 44^\circ\ 5'=9{\cdot}8424$. $\log 6{\cdot}428=\cdot8081$. $\log 7{\cdot}534=\cdot8770$, find the angle B.

Under what circumstances are there two solutions, one solution, or no possible solution, when two sides of a triangle and the angle opposite one of them are given?

FIRST PAPER.

THURSDAY, 1*st April* 1897.—9 *to* 11 A.M.

A.

1. Subtract ·3 from ·3, and divide the remainder by ·001.

2. Show that the interest on £450 for 7 months at 4 per cent. per annum is equal to the true discount for the same time and rate on £460, 10s.

3. Reduce to a single fraction in its lowest terms—

$$\frac{\frac{x}{y}+\frac{y}{x}-1}{\frac{x^2}{y^2}+\frac{x}{y}+1}\times\frac{1+\frac{y}{x}}{x-y}\div\frac{1+\frac{y^2}{x^2}}{\frac{x^2}{y}-\frac{y^2}{x}}.$$

4. Show that

$$\left(x+\frac{1}{x}\right)^2+\left(y+\frac{1}{y}\right)^2+\left(xy+\frac{1}{xy}\right)^2-\left(x+\frac{1}{x}\right)\left(y+\frac{1}{y}\right)\left(xy+\frac{1}{xy}\right)$$

$=4$.

5. If $\frac{x}{a}=\frac{y}{b}$, show that

$$\frac{x^2+a^2}{x+a}+\frac{y^2+b^2}{y+b}=\frac{(x+y)^2+(a+b)^2}{x+y+a+b}.$$

6. If the roots of a quadratic equation $ax^2+bx+c=0$ are in the proportion of $m:n$, show that $\frac{b^2}{ac}=\frac{(m+n)^2}{mn}$.

7. Show that no quadratic equation can be satisfied by more than two different values of the unknown quantity.

If the roots are reciprocal to each other, what inference can be drawn about the co-efficients of the quadratic?

8. If $ax+by+cz=0$ and $\frac{x}{a}+\frac{y}{b}+\frac{z}{c}=0$, find the ratios of x, y, z.

9. Solve the equations $x^2+xy+x=11$, $y^2+xy+y=28$.

B.

10. Show how to describe a circle round a given triangle.

If a perpendicular is drawn from the vertical angle on the base, and produced beyond the base to meet the circumference of the circumcircle, and if a part of the perpendicular measured upward from the base is made equal to the part between the base and the circumference, show that the joins of the end of this part with the ends of the base are perpendicular to the sides of the triangle.

11. Describe an isosceles triangle having each of the angles at the base double of the third angle.

Show that if a regular pentagon is inscribed in a circle, the triangle formed by joining three of its consecutive angular points has its diagonal base parallel to the join of the other two angular points.

12. Prove that if two sides of a triangle are cut by a line parallel to the base, the segments of the two sides made by this line are proportional to each other, whether the line cuts the sides externally or internally.

If a straight line AB is divided internally in C, find a point D in AB produced, so that $AD : DB :: AC : CB$.

13. Prove that if two straight lines are cut by three parallel planes, they are cut in the same ratio.

If three parallel straight lines are cut by two parallel planes, the triangles formed by joining the points of section in each plane are equal.

C.

14. Two observers on a horizontal plane, 1000 feet apart, simultaneously observe a balloon in the same vertical plane with them, and between them. If its angles of elevation are 15° and 75° to the two observers, find the height of the balloon, given

$$\tan 15^\circ = 0{\cdot}27.$$

15. If $\tan\theta = \dfrac{1+\tan a}{1-\tan a}$, express $\sin\theta$ in terms of a.

16. Show that

$$\frac{1+\sin\theta-\cos\theta}{1+\sin\theta+\cos\theta} + \frac{1+\sin\theta+\cos\theta}{1+\sin\theta-\cos\theta} = 2\ \text{cosec}\ \theta.$$

17. Do the following triangles, or any of them, admit of two solutions?—

1. $A=30^\circ$, $a=4$, $b=8$.
2. $A=30^\circ$, $a=3$, $b=8$.
3. $A=30^\circ$, $a=5$, $b=8$.

Find the two values of c when there are two solutions.

SECOND PAPER.

THURSDAY, 1*st April* 1897.—12 NOON *to* 2 P.M.

A.

1. Express $\frac{1}{8\cdot6} + \frac{1}{12\cdot9} + \frac{1}{30\cdot1} + \frac{1}{1\cdot2}$ as a fraction in its lowest terms.

2. What is meant by an *algebraic equation* and by an *algebraic identity*?

Find what value of d will make

$a-b+c-d+bc-ad+bd-ac+a^2+b^2+c^2$ vanish, where $3a+4b+1=0$, $4a+5b=c$, $b+c+4=0$.

3. Simplify $-\frac{bc}{(a-b)(a-c)}+\frac{ca}{(b-c)(b-a)}+\frac{ab}{(c-a)(c-b)}$, expressing the resulting fraction in its lowest terms.

4. Resolve x^8-1 into four factors; and hence or otherwise find four factors of 65535.

5. If $x=a+3$, express $x^3-9x^2+27x+9$ in terms of a; and hence find a value of x for which the given expression vanishes.

6. Find the highest common factor of $x^4+x^3+2x^2+x+1$ and x^4+x^3-x-1; and *prove* that your result is the highest common factor of these expressions.

7. When a certain number of two digits is multiplied by $2\frac{2}{3}$, the digits are interchanged. Find the number.

8. Define generally the meaning of the symbol of division in the expression $\frac{a}{b}$; and show that in the case where a and b are positive integers, your definition agrees with the arithmetical meaning of the symbol.

B.

9. If the vertical angle of a triangle is obtuse, show that the square on the base is equal to the sum of the squares on the sides together with twice the rectangle contained by one side, and the projection on it of the other.

E and F are the middle points of the sides CA and CB respectively of a triangle ABC, and the sum of the squares on AF and BE is equal to five times the square on EF. Prove that the triangle is right angled at C.

10. Prove that similar polygons are to one another in the duplicate ratio of their homologous sides.

Prove also that similar polygons are to one another in the duplicate ratio of their perimeters.

11. Show that two circles cannot intersect in more than two points.

Show that if a circle, when placed on another, touches it at one point, and meets it at another, the two circles must coincide.

12. Construct a triangle with sides equal to three given straight lines.

On a given straight line construct a triangle, the squares on whose other sides shall be respectively three and four times the square on the given line: and show that the angles are in proportion of 1, 2, 3.

C.

13. Find approximately the distance of a tower whose height is 74 feet, which subtends at the eye an angle of one degree.

14. Show that in a right-angled triangle the remaining elements can be expressed in terms of an acute angle and the opposite side, and find these expressions.

15. At a point in a horizontal plane, on which a tree stands, the tree subtends an angle θ, and at another point, 50 yards further back, it subtends an angle ϕ. Determine the height of the tree given cotan $\phi=3$, sin $\theta=0{\cdot}8$.

16. Find all positive values of θ less than 4 radians (about 230 degrees) which make

$$\sin\theta+\tan\theta=\cos\theta+1.$$

Lower Standard.

Monday, 28*th September* 1896.—2 *to* 5 P.M.

Candidates may obtain FULL marks by doing correctly about two thirds of the questions in each section of this paper. But the Examiners may reject a candidate who shows exceptional weakness in any of the sections A, B, C.

A.

1. What is a decimal fraction?

Multiply ·00281 by 1·35 and divide the result by 42·15.

2. A sum of £954, 9s. is to be divided between A, B, and C, so that A's share is to be three-fifths of B's, and B's ten elevenths of C's. Find B's share.

3. Simplify—

$$3\tfrac{1}{5}+4\tfrac{1}{3}-\tfrac{6}{7}\text{ of }5\tfrac{1}{4}$$

$$3\tfrac{1}{2}-\tfrac{7}{20}\text{ of }4\tfrac{1}{3}+\tfrac{3}{4}\text{ of }4\tfrac{1}{3}.$$

4. If a pair of blankets each measuring 6 ft. 9 in. by 5 ft. 3 in. cost 10s. 6d., what will a pair of the same quality, each measuring 9 ft. 9 in. by 8 ft. 3 in. cost?

5. Define the greatest common measure of three numbers and find it for 8214, 1110, and 1702.

Prove that the G.C.M. found by your method is the G.C.M. of these numbers.

6. A man invests £3850 in $2\frac{1}{2}$ per cent. consols, when they sell at 110. If income tax is at 8d. per £, how much does he receive annually from his investment?

B.

7. Divide $x^3+3x^2y+3xy^2+y^3-1$ by $x+y-1$.

8. Factorise (1) $x^4+2a^2x^2-x^2+a^4+6x-9$.

(2) $(a+b)^2+(a+c)^2-(b+d)^2-(c+d)^2$.

9. Find the highest common factor of—

$2x^2-14x+20$ and $4x(x^2+5)-25(x^2-1)$,

and of $x^2y^2-9y^2$, $x^2y-xy-6y$, and x^3-x^2-6x.

10. Show that

$$\frac{a}{(a-b)(a-c)}+\frac{b}{(b-c)(b-a)}+\frac{c}{(c-a)(c-b)}=0.$$

11. Solve—

(1) $\frac{x}{4}+3+\frac{1}{2}\left(\frac{x}{3}+4\right)+\frac{1}{3}\left(\frac{x}{2}-11\right)+\frac{5}{6}=0.$

(2) $\frac{x}{a}+\frac{y}{b}=c,\ \frac{x}{b}-\frac{y}{a}=-c.$

(3) $\frac{x^2+1}{2x}=\frac{a^2+b^2}{a^2-b^2}.$

12. If a boat's crew can row 8 miles an hour in still water, what is the rate of the current of a river if it takes $2\frac{1}{2}$ hours to row 8 miles up stream and 8 back again? Bring out the result correct to two decimal places.

13. If a, b, and c be positive, show that the fraction $\frac{a}{b}$ is increased or diminished by adding c to both numerator and denominator according as a is less or greater than b.

C.

14. If the three sides of one triangle be equal to the three sides of another, each to each, prove that the angles opposite equal sides are equal.

If a quadrilateral is made up of two equal sides meeting at one corner, and two other equal sides meeting at the other corner, show that the join of these two corners bisects the join of the other two at right angles.

15. The opposite sides and angles of a parallelogram are equal and the diagonal bisects it.

If the ends of two intersecting lines are joined, and if the four triangles which have a common vertex at the point of intersection are all equal, the figure is a parallelogram.

16. Show that if a straight line be divided equally and also unequally, the rectangle under the unequal segments together with the square on the line between the points of section is equal to the square on half the line.

Show that this proposition can be thus stated:—The rectangle under the sum and difference of two lines is equal to the excess of the square on half their sum over the square on half their difference.

17. The square on a side opposite an acute angle of a triangle is less than the sum of the squares on the sides containing it by twice the rectangle under either side and the projection of the other upon it.

By using previous propositions, show that if the square on one side be less than the sum of the squares on the other two, the angle opposite it is acute.

18. Show how to draw a tangent to a circle from an external point.

In a given straight line find a point such that the tangent from it to a given circle may be equal to a given straight line. When is this impossible?

19. If from any point in the circumference of a circle two lines be drawn, one cutting and one touching the circle, show that each of the angles between the two lines is equal to an angle in the alternate segment.

ABC is a triangle inscribed in a circle. A tangent is drawn at A, and it meets in the point E a parallel to AC which meets BC in D. Show that A, B, E, D are on the circumference of a circle.

MONDAY, 29*th March* 1897.—2 *to* 5 P.M.

A.

1. When are two fractions with different denominators equivalent to each other?

State and justify the rule for multiplying one fraction by another.

How many times does $\frac{1}{4}+\frac{1}{8}+\frac{1}{12}$ contain $\frac{1}{5}+\frac{1}{6}+\frac{1}{7}$?

2. Reduce to decimals, and then add—

$$\tfrac{3}{7},\ \tfrac{1}{160},\text{ and }\tfrac{2}{9}.$$

3. If gunpowder is composed of 33 parts by weight of nitre, 7 of charcoal, and 5 of sulphur, how many pounds and ounces of charcoal are contained in $4\frac{1}{2}$ cwt. of gunpowder?

4. If a draper buys 600 yards of silk at 3s. $4\frac{1}{2}$d. per yard, of which he sells 81 yards at 3s. 9d. per yard, and 360 yards at 4s. 6d., the rest being made useless by a fire, what is his percentage loss or gain on his transactions in silk?

5. Find the simple interest on £486, 10s. 9d., for 4 years and 2 months, at $5\frac{1}{2}$ per cent. per annum.

6. Extract the square root of 4943·4961.

Why can there be no exact square root if the number of figures after the decimal point be odd?

B.

7. Divide x^4+2x^2-x+2 by x^2-x+1.

8. Find four factors of $4a^2(x^6+18a^2)-(32a^3+9b^2x^3)$.

9. Find (1) the highest common factor, (2) the lowest common multiple, of—

$$x^3+2x^2y+xy^2+2y^3, \text{ and } x^3-2x^2y+xy^2-2y^3.$$

10. Find the square root of—

$$4a^4+9\left(a^2+\frac{1}{a^2}\right)+12a^2\left(a+\frac{1}{a}\right)+18.$$

11. Find single fractions equivalent to—

(1) $\dfrac{1}{x-1}-\dfrac{3}{(x-1)(x-2)}+\dfrac{1}{(x-1)(x-2)(x+3)}$,

(2) $\dfrac{1+a}{(a-b)(a-c)}+\dfrac{1+b}{(b-c)(b-a)}+\dfrac{1+c}{(c-a)(c-b)}$.

12. Solve—

(1) $\dfrac{x}{x-2}-\dfrac{x+1}{x-1}=\dfrac{x-8}{x-6}-\dfrac{x-9}{x-7}$,

(2) $\dfrac{x}{a}-\dfrac{y}{b}=1,\ \dfrac{x}{b}+\dfrac{y}{a}=\dfrac{a}{b}$.

13. An income of £120 a year is derived from investments in two stocks, one yielding £$3\frac{1}{2}$ per £100 stock and the other £4 per £100. The investments realised £3672 when the first was sold out at 108, and the second at 120. How many shares of each stock were held?

14. State and justify the rule which determines whether the product of two algebraical quantities has the positive or negative sign.

C.

15. Prove that the angles at the base of an isosceles triangle are equal to each other, and if the equal sides be produced, the angles on the other side of the base are also equal.

If equal segments upwards from the base are cut off the sides, and the points of section are joined with the opposite ends of the base, show that these two joins are equal, and divide each other into equal segments.

16. Prove that if a straight line intersects two parallel lines, the alternate angles are equal, the exterior angle is equal to the interior and remote on the same side of the cutting line, and the two interior angles on the same side are equal to two right angles. Enunciate the axiom on which you base your proof.

If two lines intersect, and two other lines are parallel to them, the smaller of the angles between the first pair of lines and of those between the second pair are equal.

17. Define the projection of one straight line on another.

Prove that the square on the side opposite an obtuse angle in a triangle exceeds the sum of the squares on the sides enclosing it by twice the rectangle contained by either side and the projection on it of the other side.

From this and corresponding propositions, show that the sum of the squares on two sides of a triangle exceeds twice the square on half the third side, with the middle point of that side.

18. Prove that if one circle touch another internally, the join of their centres goes through the point of contact.

If the difference between the radii of two circles is equal to the length of the line joining their centres, show that at the point of meeting the two circles touch each other.

19. On a given straight line, describe a segment containing an angle equal to a given angle.

Show how to construct a triangle with a given base, a given vertical angle, and a given difference in length between the two sides.

20. Show that if from a point outside a circle a cutting line and a touching line be drawn, the square on the latter line is equal to the rectangle under the external segments of the chord made by the former line.

Prove that if two circles cut, and have a common tangent, the common chord produced bisects the common tangent.

FRENCH.

FIRST PAPER.

TUESDAY, *29th September* 1896.—3 *to* 4.30 P.M.

Translate into French :—

(*a*) The next morning his father took two places in the coach (*diligence*, f.), and conveyed him to Paris to the Collège d'Harcourt. He made all the arrangements, and wished his son good-bye. But the good man loved the boy too dearly to leave him without being quite at ease how he would fare (*se trouver*). He had the patience to remain a fortnight killing the time and half dead of weariness in an inn, without ever seeing his son. At the end of the time he went to the college, and Diderot used many a time to say that such a mark of tenderness and goodness would have made him go to the other end (*bout*, m.) of the world if his father had required it. "My friend," said his father, "I am come to see if you are well, if you are satisfied with your superiors, with your food, with your companions, and with yourself. If you are not well or not happy, we will go back together to your mother. If you had rather stay where you are, I am come to tell you that you may, to embrace you and to leave you my blessing."

JOHN MORLEY.

(*b*) 1. It is difficult to say when the train will arrive.

2. He may be older than he looks.

3. We shall never know whether they fought well or not.

4. He struck me a blow with his stick.
5. There are two ways of answering this question.
6. He was so full of his subject that he spoke on for an hour.
7. Well, John, are you now in better spirits?

SECOND PAPER.

THURSDAY, 1*st October* 1896.—3 *to* 5 P.M.

I.

Translate into English:—

(*a*) Le croirait-on, cet acteur si brillant n'avait pas de mémoire. Force lui était, quand il jouait une longue scène au fond du théâtre, d'avoir un second souffleur (*prompter*) derrière le décor. Il inventait les plus étranges artifices de mnémonique. Tantôt c'était un fauteuil, tantôt une fleur du tapis, tantôt un certain quinquet (*footlight*), auxquels il accrochait le souvenir d'un hémistiche, d'un vers qui lui échappait toujours. Comment pouvait-il accommoder sa verve, sa fougue avec ces affreux tâtonnements du souvenir? . . . Comment? En les faisant servir à sa fougue elle-même. Oui, ainsi que Molé, qui lui, non plus, dit-on n'avait pas de mémoire, il tirait de sa lutte avec les mots des effets inexprimables; il semblait aller chercher ses paroles au fond de ses entrailles; ses bégaiements de langue devenaient des frémissements de passion. Si naïve, du reste, était son ardeur, qu'au moment des représentations d'*Hernani*, quand il rentrait dans sa loge épuisé par ce rôle écrasant, il suffisait de nier devant lui la beauté de la pièce, pour qu'il repartit avec un surcroit d'entrain et de rage et vous jetât en réponse les plus beaux passages du rôle. Chose étrange, cet être si nerveux eut la vieillesse d'un sage et la mort d'un stoïcien.

LEGOUVÉ.

(*b*) INVENTION DES ARTS ET MÉTIERS (*crafts*).

Pour prolonger des jours destinés aux malheurs
Naissent les premiers arts, enfants de nos douleurs.
La branche en longs éclats cède au bras qui l'arrache ;
Par le fer façonnée, elle allonge la hache ;
L'homme, avec son secours, non sans un grand effort,
Ebranle et fait tomber l'arbre dont elle sort ;
Et tandis qu'au fuseau la laine obéissante
Suit une main légère, une main plus pesante
Frappe à coups redoublés l'enclume qui gémit.
La lime mord l'acier et l'oreille en frémit.
Le voyageur, qu'arrête un obstacle liquide,
A l'écorce d'un bois confie un pied timide.
Retenu par la peur, par l'intérêt pressé,
Il avance en tremblant : le fleuve est traversé.
Bientôt ils oseront, les yeux vers les étoiles,
S'abandonner aux mers sur la foi de leurs voiles.
Avant que dans les pleurs ils pétrissent leur pain,
Avec de longs soupirs ils ont brisé le grain.
Un ruisseau par son cours, le vent par son haleine,
Peut à leurs faibles bras épargner tant de peine :
Mais ces heureux secours, si présents à nos yeux,
Quand ils les connaîtront, le monde sera vieux.

LOUIS RACINE.

II. GRAMMAR.

1. Give the 1st person singular of the preterite, *and* the 2nd person plural of the future, of any *four* of the following : *croire, pouvoir, faire, dire, aller.*

2. Give the 1st person plural of the imperfect indicative, *and* the past participle, of any *four* of the following : *devenir, suffire, nier, repartir, naître.*

3. Parse : *repartit, jetât, pétrissent, peut,* AND in each of the

following four nouns name the simple verb: *souvenance, surcroît, secours, déchet.*

4. Supply appropriate endings to each of the following incomplete sentences:—

(*a*) Je suis venu afin *de* . . .
Nous sommes venus afin *que* . . .

(*b*) Je me suis placé de manière *à* . . .
Il se placera de manière *que* . . .

(*c*) Je me plains *de ce que* . . .
Je suis mécontent *que* . . .

(*d*) Tout méchant qu'il . . . je l'aime.
Quelque méchant qu'il . . . je l'aime.

5. In the four following sentences explain wherein the words printed in italics show peculiarities of syntax contrasting with English usage, *and* give in each case a parallel example in French:—

(*a*) Voilà trois jours *qu'il pleut.*

(*b*) Quand il *sera venu* appelez-moi.

(*c*) Je *lui* ai ôté son chapeau.

(*d*) Il couvrait la pierre *de* sable.

III. Philology and Literature.

Only ONE *question to be attempted.*

1. Separate the prefixes in any *ten* of the following, explaining their force and origin: soufflleur, derrière, accrocher, échapper, représentation, prolonger, malheur, enfant, retenir, connaître, inexprimable, accommoder.

2. (*a*) Why do French nouns form, as a rule, their plurals in *s*? (*b*) What is the origin of the *x* which some nouns add in the plural? (*c*) What is, as a rule, the origin of the *u* which precedes the final *x*? (*d*) Why do such double forms as *aïeuls*, and *aïeux* co-exist? (*e*) Give other instances of doublets in French.

3. (*a*) Distinguish etymologically: en vend*ant* and un homme

vend*ant* des cerises. (*b*) Find an etymological analogy in : j'*ai* à travailler demain and je travaille*rai* demain. (*c*) Why do the French say près *de* and loin *de* while the English say near *to* and far *from* ? (*d*) When is the *s* pronounced at the end of *tous* ? (*e*) Translate : I am being wounded, and explain why *je suis blessé* is not the correct French for this expression.

4. Explain the etymological processes exhibited in the following series : (*a*) ta*b*le, fe*mm*e, mira*cl*e ; (*b*) mi*el*, *bien*, *vient* ; (*c*) or, t*au*reau, l*au*rier ; (*d*) *ch*ef, *ch*amp, mar*ch*é ; (*e*) mer, marin ; pierre, perron ; rouge, Roget.

5. Who were the authors of the following works : *Discours de la méthode : Télémaque : Phèdre : le Lutrin : Polyeucte : Elégie aux nymphes de Vaux ; le Misanthrope ; Discours sur l'histoire universelle ; les Provinciales ; les Caractères.*

6. Give the name of any *five* English writers, and of any *five* works in English literature, generally admitted to show signs of French seventeenth century influence.

FIRST PAPER.

TUESDAY, 30*th March* 1897.—3 *to* 4.30 P.M.

Translate into French :—

I. The respect we pay to wealth absorbs the respect we should pay to genius. Literary men have not with us any fixed and settled position as men of letters. . . . 'I am nothing here,' said one of the most eminent men of science this country ever produced ; 'I am forced to go abroad sometimes to preserve my self-esteem.' A literary man with us is often forced to be proud of something else than talent—proud of fortune, of connection, or of birth—in order not to be looked down upon. Byron would never have set a coronet over his bed if he had not written poetry, and the fastidious Walpole have affected to disdain the author, if he had not known that with certain circles authorship was thought to lower the gentleman. Every one

knows the anecdote of a certain professor of chemistry, who, eulogising Boyle, thus concluded his panegyric: 'He was a great man, a very great man; he was father of chemistry and brother to the Earl of Cork.'

II. 1. I have done my best.
2. He is a self-made man.
3. It is all over with us.
4. Every other day.
5. I think I had better go and ask for his advice.
6. I wish I could get that book.
7. You ought to have done this sooner.
8. Do you object to my asking you a question?
9. Let every man do his dŭty.
10. That boy wants looking after.

SECOND PAPER.

THURSDAY, 1*st April* 1897.—3 *to* 5 P.M.

Translate into English:—

I. Nos facultés exercent sur nous une tyrannie. Nous avons le besoin de les employer, comme l'enfant de remuer ses membres et l'oiseau de déplier ses ailes. Le don supérieur de l'expression conduisit aussitôt Victor Hugo à un besoin irrésistible d'exprimer ce qui flottait dans l'air de son temps. Il se fit, d'instinct, le porte-voix des idées de sa génération. Cela ne veut pas dire qu'il ait rendu dans ses vers et dans sa prose toutes les aspirations du XIX^e^ siècle. Plusieurs lui ont échappé, dont une essentielle: la Science . . . Son intelligence, merveilleusement armée pour l'élan de lyrisme, était impuissante à la lente besogne de l'observation anatomique. Il s'est défini lui-même avec une justesse saisissante lorsqu'il s'est représenté comme une sorte de harpe, émue au moindre souffle, "Mise au centre de tout, comme un écho sonore."

Par une involontaire soumission à cette destinée il fut le poète non pas de ses propres tortures, comme Henri Heine ou Musset, mais des passions de ceux qui l'entouraient. Les voix plaintives des victimes de la Terreur, entendues encore dans le grand silence de la Restauration, passèrent dans ses *Odes*. Puis la sonnerie des victoires napoléoniennes se répercuta dans d'autres odes, et dans des strophes magnifiques, l'appel des revendications helléniques.—P. BOURGET.

II. A la fin de juillet les villages sont vides.
Depuis longtemps déjà les nuages livides,
Menaçant d'un prochain orage à l'occident,
Conseillaient la récolte au laboureur prudent.
Donc voici la moisson et bientôt la vendange :
On aiguise les faux, on prépare la grange,
Et tous les paysans, dès l'aube rassemblés,
Joyeux vont à la fête opulente des blés.
Or, pendant tout ce temps de travail, les aïeules
Au village, devant les portes, restent seules,
Se chauffant au soleil en branlant le menton,
Calmes, et les deux mains jointes sur leur bâton.

. . . . . .

Elles restent ainsi tout le jour sur un banc,
Heureuses, sans penser peut-être, sans rien dire,
Adressant un béat et mystique sourire
Au clair soleil qui dore au loin le vieux clocher
Et mûrit les épis que leurs fils vont faucher.

F. COPPÉE.

GRAMMAR.

(*Answer* FOUR *of the following Questions.*)

I. How do the French and English languages differ with respect to collective nouns? Give examples.

II. Parse the following verbal forms : Nous nous assiérions.

Vous faillîtes. Issu. Je vaudrais. Echéant. Sache. Crû. Nous moudrions. Que vous naquissiez. Résolvez.

III. Account for the use of the indicative and of the subjunctive in the following sentences: Dites-lui que je m'en *vais*. Dites-lui qu'il s'en *aille*. Je prétends que c'est toi qui l'*as* fait. Je prétends que tu me *craignes*. Racontez-moi l'histoire que vous *avez* lue. Racontez-moi une histoire que vous *ayez* lue. J'ai un ami qui me *dit* tout ce qu'il pense. Je veux un ami qui me *dise* tout ce qu'il pense.

IV. State the rules for the concord of the following participles:—

Nous nous étions *proposé* de vous accompagner.
Sa conduite n'est pas telle que je l'aurais *désiré*.
C'est un de ces livres que j'ai *lu*.
Ils se sont *laissé* mettre à mort.
Ils se sont *vus* et se sont *plu*.

V. Show differences of inflexion between the conjugation of *dire* and of its derivatives.

VI. Account for the formation of such adverbs as *prudemment*, *méchamment*, from the adjectives *prudent*, *méchant*.

Philology and Literature.

(*Only* One *Question to be attempted.*)

I. Give the etymology of *six* of the following words: Alors, Aîné, Maintenant, Désormais, Autrui, Encore, Malheur, Avaler. On, Même.

II. Account for the fact that a good many Latin words have given two French words (like *meuble* and *mobile*, from *mobilem*). Give some examples.

III. What do you know about the ideas of J. J. Rousseau on education?

IV. Give a summary of any play of either Regnard, or Marivaux, or Beaumarchais, you have read; *or*, say what you know about one of these writers and the importance of his dramatic works.

GERMAN

FIRST PAPER.

WEDNESDAY, *30th September* 1896.—3 *to* 4.30 P.M.

Translate into German :—

(*a*) I bade him good-night, and leaving him there, rode into the town, passing through narrow, mean streets, and under dark archways and hanging lanterns, that swung and creaked (ächzen) in the wind, and did everything but light the squalid obscurity. Though night had fallen, people were moving briskly to and fro, or standing at their doors. The place, after the solitude through which I had ridden, had the air of a city; and presently I became aware that a little crowd was following my horse. Before I reached the inn, which stood in a dimly-lit square, the crowd had grown into a great one, and was beginning to press upon me; some who marched nearest to me staring up inquisitively into my face, while others, farther off, called to their neighbours, or to dim forms seen at basement windows, that it was he!—WEYMAN.

(*b*) 1. I should not like to have my hat blown away in this wind.

2. He will leave for America this day week.

3. Stop reading now, it is getting too dark for you to see any longer.

4. You have been expected these two hours. Why do you keep us waiting?

5. Half-an-hour before he might have saved himself by jumping out of the window.

6. He was heard to say that he did not like living near the sea.

SECOND PAPER.

FRIDAY, *2nd October* 1896.—9 *to* 11 A.M.

I. Translate into English :—

(*a*) Der Gegenſatz, den das griechiſche Altertum in der Geiſtesart

der Dorer und Jonier aufweist, wiederholt sich auf deutschem Boden in den Ländern nördlich und südlich der Mainlinie. Bei den Spartanern wie bei den Bewohnern des norddeutschen Flachlandes kommt von den Geistesgaben mehr der Verstand und der Wille zur Bethätigung, dagegen ist den Hellenen gleich den oberdeutschen Stämmen eine reichere Einbildungskraft und ein froheres Gemüt als Erbteil zugefallen. Früher als die übrigen deutschen Länder in den Kulturbereich des Altertums gezogen, mehr durch Naturschönheiten und Farbenfülle der Landschaft angeregt und mit milderem Himmel beglückt, hatten die Gebiete an Donau und Mittelrhein die wesentlichsten Vorbedingungen zu einer glücklichen Entfaltung der Künste und waren daher wie geschaffen, auf dem Gebiete des Schönen die Führung in Deutschland zu übernehmen. So hat denn auch Österreich die bedeutendsten Tonkünstler hervorgebracht, Bayern ist seit langer Zeit ein wichtiger Sitz der Malerei und der bildenden Künste, und Schwaben und Mittelfranken haben unserem Vaterlande seine größten Dichter, Schiller und Goethe, geschenkt. Nicht minder beachtenswert dürfte sein, daß die süddeutschen Stämme vermöge ihrer reicheren Phantasiebegabung auf eine große Zahl wichtiger Erfindungen geführt worden sind. Ihnen verdanken wir z. B. Holzschnitt und Kupferstich, Buchdruck und Schnellschrift, Schießpulver und Taschenuhr. — WEISE.

(*b*) **Herbstgefühl.**

Der Buchenwald ist herbstlich schon gerötet,
So wie ein Kranker, der sich neigt zum Sterben,
Wenn flüchtig noch sich seine Wangen färben;
Doch Rosen sind's, wobei kein Lied mehr flötet.

Das Bächlein zieht und rieselt, kaum zu hören,
Das Thal hinab, und seine Wellen gleiten
Wie durch das Sterbgemach die Freunde schreiten,
Den letzten Traum des Lebens nicht zu stören.

Ein trüber Wandrer findet hier Genoſſen;
Es iſt Natur, der auch die Freuden ſchwanden,
Mit ſeiner ganzen Schwermut einverſtanden,
Er iſt in ihre Klagen eingeſchloſſen.

LENAU.

II.—GRAMMAR.

1. Give the 2nd person singular of the present, imperfect, and perfect, and of the imperative of heiraten, beratſchlagen, anbefehlen, frühſtücken.

2. Mention two cases in which the English infinitive with "to" cannot be rendered by the corresponding German construction, and give examples.

3. Ich glaube nicht, daß er hätte früher kommen können. What difference do you observe here in the syntax of the English and German auxiliaries of mood? How do you explain it?

4. Which are the common ways of rendering English passive constructions in German? Give examples.

5. For what purposes is the genitive used in German syntax? Give examples.

III.—PHILOLOGY AND LITERATURE.

(*Only* ONE *question to be attempted.*)

1. Certain terminations of German substantives and adjectives were formerly used as independent words. Mention some and show by examples how far their original meaning is preserved.

2. Explain the apparent irregularities in the conjugation of the auxiliary verbs of mood and in the verb „wiſſen".

3. What facts prove to you that English is more closely related to German than to French?

4. Show the influence of English on German literature within the period prescribed for this examination.

5. Say what you know of Voss and his works.

6. Contrast Klopstock and Lessing as poets.

FIRST PAPER.

WEDNESDAY, 31*st March* 1897.—3 *to* 4.30 P.M.

Translate into German :—

(*a*) It is needless, gentlemen, for me to tell you that I was the only melancholy spectator of this funeral; whereas the rest were scarcely moved at it, the practice was so customary to them. I could not forbear speaking my thoughts of this matter to the king. "Sir," I said, "I cannot but wonder at the strange custom in this country of burying the living with the dead. I have been a great traveller and seen many countries, but never heard of so cruel a law." "What do you mean, Sinbad?" said the king, "it is a common law; I shall be interred with the queen, my wife, if she die first." "But, sir," said I, "may I presume to ask your Majesty if strangers be obliged to observe this law?" "Without doubt," replied the king, smiling at my question, "they are not exempted if they be married in this island."

(*b*) 1. He need not proceed in such haste.
2. I should be obliged to him if he would gratify me in that particular.
3. Hoping that I may soon hear from you, I remain yours truly.
4. We should be greatly mistaken if we supposed that wealth and rank were exempt from care and toil.
5. Can you speak German? How long have you been studying it?
6. Goethe's heart, which few knew, was as great as his intellect, which everybody knew.

SECOND PAPER.

FRIDAY, 2*nd April* 1897.—9 *to* 11 A.M.

I. Translate into English :—

(*a*) Franz war ein frommes, vertrauendes Gemüth und war

dabei streng katholisch erzogen. Er wanderte nun zuerst nach den südlichen Ländern, wo seine Religion die allgemeinste war und auch herrschte. Er fand nur selten Arbeit. Da nahm er sich endlich vor, nach Italien zu wandern; er selbst wußte nicht recht warum; aber ein wandernder Handwerksbursche macht keinen Umweg, wenn er auch noch so sehr fehl geht. Er findet aber hier wenig Arbeit, denn man hat inländische Stricke (*ropes*) genug und braucht keine fremden, und auch hier laufen die ärgsten Spitzbuben ungehangen umher. Franz geht zuerst auf Venedig zu. Dort will er lernen, große Schiffstaue machen. Darnach trägt es großes Verlangen. Unterwegs aber mußte er mit Trauer sehen, daß seine Stiefel nicht mehr Stich halten wollen, sondern nach allen Seiten hin ausreißen. Er nimmt nun die Fußbekleidung in die Hand und marschiert barfuß weiter.—B. Auerbach.

(*b*)

Bei Homer's Bild.

Du guter, alter, blinder Mann,
Wie ist mein Herz dir zugethan!
Nimm dieses Herzens heißen Dank
Für deinen göttlichen Gesang.

O hätt' ich deiner Lieder Macht,
Ich rief' dir durch der Gräber Nacht!
Du kämst, in Morgenroth gehüllt,
So hehr und freundlich wie dein Bild.

Nun tränkst du des Olympos Luft
Mit langen Zügen in die Brust;
Ich läs' auf deinem Angesicht;
Den neuen Nektar kannt' ich nicht!

F. L. Stolberg.

II.—Grammar.

1. Give the inseparable prefixes, and state their meaning and origin.

2. How are English participial clauses to be translated into German? Give examples.

3. Give second person singular, present indicative of all irregular verbs in extract (*a*).

4. When has the subjunctive to be used in dependent clauses in German? Give examples.

III.—Philology and Literature.

Only one *of the following questions to be attempted.*

1. Give the various linguistic periods into which the German language is divided, with approximate dates.

2. Describe shortly Grimm's law.

3. Give the meaning and derivation of: Drittel, Prediger, Friedrich, Abenteuer, Ankunft, Kunſt, Flucht, Dienſtag, Samſtag, Aufzug.

4. Give a short sketch of Klinger's life and work, with special reference to the period of German literature, which he influenced.

5. Enumerate either Schiller's or Goethe's dramatic works in chronological order, and give shortly the plot of any one of them.

6. Mention the various branches of literature in which Arndt, Körner, and Rückert were distinguished—with titles of a few of their writings.

DYNAMICS.

Friday, 2*nd October* 1896.—1 *to* 4 p.m.

Candidates may obtain full *marks by doing correctly about two thirds of the questions in this paper.*

1. If the velocity of a point A relative to another B is represented by a straight line PQ, and that of B relative to a third point C by RS, shew how to find the velocity of A relative to C.

A vessel is steaming 30° west of north at 10 miles per hour in an east wind, and the line of her smoke lies north and south. Find the speed of the wind.

2. Given the position and velocity at any time of a particle which moves from rest under a constant acceleration, find expressions to give its position and velocity at any subsequent time.

If a particle projected vertically upwards rise a distance H in half the time it takes to the greatest height, find that height.

3. Express in terms of length, time, mass (1) acceleration, (2) energy, (3) momentum.

The acceleration due to gravity on another planet has the same numerical value with the foot and second as units as that on the earth in terms of centimetres and seconds; compare the weights of a body on these planets. [A metre = 39·4 inches.]

4. Prove that the tension of a light string passing round a smooth pulley and supporting two equal weights is the same at all points.

A body hangs over a pulley at the edge of a smooth table by a string whose other end is attached to a body of equal mass lying on the table. Find the accelerations of the bodies, and shew that in any time from rest the former body falls through one half of the distance it would fall if free.

5. Compare and contrast momentum and energy. Two particles of different masses have equal momentum: which has the greater energy?

6. Explain the meaning of the terms kinetic energy, potential energy. How are they measured?

Trace the changes of energy when a body of mass M is projected vertically upwards with velocity V, rises, returns, and imbeds itself in the earth.

7. Explain the use of the inclined plane.

Determine the mechanical advantage obtained by using a

smooth plane inclined at 30° to the horizon in raising a body, the applied force being parallel to the plane.

8. How is work measured? Shew that the work done in raising a body any height by means of the plane of question 7 is the same as in raising it vertically to the same height.

9. State the proposition called the triangle of forces. How may it be experimentally verified?

Forces P, $\sqrt{3}P$, $2P$, act on a particle: find the angles between their respective directions so that there may be equilibrium.

10. Find the condition of equilibrium in the system of pulleys in which one string passes round two sets of pulleys, each set fixed in a block.

A man of 12 stone raises 3 cwt. by means of such a system of pulleys, there being 4 in each block. Neglecting the weight of the pulleys find his pressure on the ground if he pull vertically.

11. Define the centre of Inertia (centre of gravity).

Find the centre of inertia of a regular pentagon.

12. When is a line said to be vertical?

Shew that the free surface of a heavy liquid at rest must be horizontal.

Explain why the surface of a canal is not plane but curved.

13. Shew that when a uniform solid floats in liquid the centres of mass of the body and of the part of the body immersed are in the same vertical line.

Prove that the equilibrium of a uniform sphere floating in liquid is neutral.

14. Determine how much of a solid of given density is immersed when it floats in a liquid whose density is also given.

A pound of lead (specific gravity 11·44) hangs in water by a string. Find the tension of the string.

15. Describe the barometer and find the relation between its height and the atmospheric pressure.

Find the height of the mercury barometer when the atmospheric pressure is 15 pounds' weight per square inch, the specific gravity of mercury being 13·6, and the mass of a cubic foot of water 1000 ounces.

FRIDAY, 2*nd April* 1897.—1 *to* 4 P.M.

1. What is meant by the displacement of a point? Show how it may be represented by a straight line.

If a body suffers two successive displacements represented by two sides of a triangle taken in order, find a straight line that will represent the resultant displacement.

2. Explain how to find the relative motion of two points whose motions are given.

Two points describe the same circle uniformly in the same time. Show that each describes a circle relatively to the other.

3. How does the unit of velocity depend on the units of length and time employed?

Express the acceleration of a falling body in terms of the mile and the hour as units.

4. Find the velocity and the energy generated when an impulse of given magnitude acts on a body of given mass originally at rest.

On a body of mass 3 grammes originally at rest, an impulse of magnitude 7 (C.G.S. units) acts in a northward direction, and then an impulse of magnitude 10 westward. Show that the final velocity is a little greater than 4 cm. per second, and roughly indicate its direction.

5. Find expressions for the velocity of, and the space described by, a body moving in a straight line, and subject to a constant retardation.

In a curling match a man sends his first stone of mass 40 lbs. with velocity 10 ft. per sec., and it comes to rest at the tee. With what velocity must he send his second to stop 2 yards

short of the first, and guard it. the frictional resistance to the stone's motion being 20 ounces' weight?

6. State Newton's Third Law of Motion.

A force acts on one of two spheres originally at rest. After the force has ceased, direct impact takes place, and the spheres move on together. Show how the Laws of Motion may be applied to investigate the motion.

7. State Newton's First and Second Laws of Motion.

The pressure between the ground and a body resting on it is less than the attraction between the body and the Earth. Reconcile this with the Laws of Motion.

8. A mass rests on a rough plane inclined at 30° to the horizontal. A rope attached to the body passes over a pulley fixed at the top of the plane and is pulled vertically downwards by a man of equal mass. The man, though able to lift himself, is just unable to move the body. Determine the direction and magnitude of the reaction between the plane and the body.

9. Show how to find the Centre of Mass of a body.

In the case of three particles, prove that your method gives a single determination of its position.

10. Define the Moment of a Couple, and show that two couples in the same plane are equivalent if their moments are equal, and they act in the same sense.

Three men at the ends of three of the eight bars of a capstan undertake to hold the capstan still against five others. At what distance from the centre should the five be placed to make a match, all men being supposed equally strong?

11. A mass of 3 tons hung from a fixed point by a cable of length 13 yards is moved by a horizontal pull a distance whose horizontal component is 5 yards. Find the greatest value of the pull, which is supposed to be at every moment just sufficient to move the mass.

Determine also the work done.

12. Define the term *fluid*, and explain how the pressure in a given direction at a point in a fluid is measured.

Show that the pressure at any point in a liquid at rest exceeds that at the surface by a quantity proportional to the depth.

13. Show that when a body floats in a liquid it displaces a mass of liquid equal to its own mass.

The imperial goldsmith being given gold to form into a crown, abstracted part, and replaced it by an equal weight of silver. The emperor suspects him, and wishes to test his suspicions. Give a method by which he may determine the quantity of silver employed.

14. Explain the action of the Siphon.

Explain generally what the effect would be of a leak at the highest point of the siphon.

15. Describe and explain the construction and use of the barometer.

Does a defect in (1) the uniformity, (2) the perpendicularity, of the tube used affect the accuracy of the readings? Give your reasons.

Additional Examination Papers for First Year Open Bursaries in Arts.

ENGLISH.

FRIDAY, *25th September* 1896.—9 *to* 12.

[1 *and* 9 *to be done by all. It will be better not to attempt more than* FIVE *of the others.*]

1. Write an essay on *one* of the following subjects (not more than three-quarters of an hour should be devoted to this):—

(1) Ballad Poetry.

(2) The History of Shakespeare's reputation.

(3) Scottish Literature between Dunbar and Drummond (not including either).

2. Give a brief critical account of *one* of the following books: —*The Knight's Tale*, *The Shepherd's Calendar*, *Julius Cæsar*, *Lycidas*, *Absalom and Achitophel*, *The Castle of Indolence*, *She Stoops to Conquer*, *The Excursion*.

3. What is meant by:—*Cæsura*, *elision*, *slur*, *accentual and quantitative scansion*, *weak ending*, *catalectic metre*, *Alexandrine*?

4. State briefly what you know of the life and writings of *two* of the following:—Langland, Henryson, Ascham, Montgomerie, Drayton, Hobbes, Steele, Horace Walpole, Godwin, Leigh Hunt, Landor.

5. Who are meant by 'The Dramatists of the Restoration'? Is the phrase strictly correct? and, if not, what is its justification?

6. What were the characteristics of Kentish dialect, and what are the chief literary works in it?

7. Mention the chief writers contemporary with Johnson, adding the name of at least one principal work by each.

8. Who were the first notable English authors of the Sonnet, the Essay, the Masque, the 'Heroic' Play, the 'Burlesque' Play, the Novel of Character? Give a brief definition or description of each of these literary kinds, with examples.

9. Turn into modern English, as closely as possible:—

(*a*) Fyrst forð ȝewat; flota wæs on yðum,
bat under beorȝe. Bearnas ȝearwe
on stefn stiȝon; streamas wundon
sund wið sande.

(*b*) Þa het se cyng faran mid nigonum to þara niwena scipa; ond forforon him þone muðan foran on utermere.

(*c*) Wodon þa wælwulfas, for wætere ne murnon,
wicinga werod, west ofer Pantan,
ofer scir wæter scyldas wægon.

(*d*) þæ cheorles mid heore botten
weoren þer wiȝ innen,
þa botten heo up heouen
and adun riht sloȝen.

(*e*) By-fore alle men upon molde, his mensk is the most.

(*f*) By lered, by lewed, that loth is to spende,
Thus gone her godes be the goste faren.

(*g*) It is but dretching of swevens.

LATIN.

SATURDAY, *3rd October* 1896.—9 *to* 10.30 A.M.

1. Translate into Latin prose :—

Tigranes, intoxicated by a sense of overwhelming strength, refused even to believe in the rumours that the Romans, whom he was preparing to drive out of Asia, were actually invading his own territory. Even when convinced of the truth of the report, he merely sent a detachment of troops with orders to bring Lucullus before him alive. The defeat of this force did indeed shake his confidence; but the sight of the vast host which rallied to his standard, in obedience to his call, revived his courage, and confirmed his resolution to crush the invaders in a single battle. On the news of his approach, Lucullus, who was besieging Tigranocerta, and who, with better reason, was no less anxious to force on an engagement, left Murena to continue the siege, and with a force "too large," as Tigranes said, "for an embassy, and too small for an army," advanced to meet the enemy.

2. Translate into English :—

[*In praise of the Emperor Nerva Caesar.*]

Tanta tibi est recti reverentia, Caesar, et aequi,
quanta Numae fuerat; sed Numa pauper erat.
ardua res haec est, opibus non tradere mores

et cum tot Croesos viceris, esse Numam.
si redeant veteres, ingentia nomina, patres,
Elysium liceat si vacuare nemus :
te colet invictus pro libertate Camillus,
aurum Fabricius, te tribuente, volet ;
te duce gaudebit Brutus, tibi Sulla cruentus
imperium tradet, cum positurus erit ;
et te privato cum Caesare Magnus amabit,
donabit totas et tibi Crassus opes.
ipse quoque infernis revocatus Ditis ab umbris
si Cato reddatur, Caesarianus erit.

GREEK.

SATURDAY, *3rd October* 1896.—10.30 *to* 12 *o'clock.*

1. Translate :—

τί γὰρ δή ποτε, Εὔβουλε, Ἡγησίλεῳ μὲν κρινομένῳ, ὃς ἀνεψιός ἐστί σοι, καὶ Θρασυβούλῳ πρώην, τῷ Νικηράτου θείῳ, ἐπὶ μὲν τῆς πρώτης ψήφου οὐδ' ὑπακοῦσαι καλούμενος ἤθελες, εἰς δὲ τὸ τίμημα ἀναβὰς ὑπὲρ μὲν ἐκείνων οὐδ' ὁτιοῦν ἔλεγες, ἐδέου δὲ τῶν δικαστῶν συγγνώμην ἔχειν σοι ; εἶτα ὑπὲρ μὲν συγγενῶν καὶ ἀναγκαίων ἀνθρώπων οὐκ ἀναβαίνεις, ὑπὲρ Αἰσχίνου δὲ ἀναβήσει, ὃς, ἡνίκ' ἔκρινεν Ἀριστοφῶν Φιλόνεικον καὶ δι' ἐκείνου τῶν σοι πεπραγμένων κατηγόρει, συγκατηγόρει μετ' ἐκείνου σου καὶ τῶν ἐχθρῶν τῶν σῶν εἷς ἐξητάζετο. ἐπειδὴ δὲ σὺ μὲν τοντονσὶ δεδιξάμενος καὶ φήσας καταβαίνειν εἰς Πειραῖα δεῖν ἤδη καὶ χρήματ' εἰσφέρειν καὶ τὰ θεωρικὰ στρατιωτικὰ ποιεῖν, ἢ χειροτονεῖν ἃ συνεῖπε μὲν οὗτος, ἔγραψε δ' ὁ βδελυρὸς Φιλοκράτης, ἐξ ὧν αἰσχρὰν ἀντ' ἴσης συνέβη γενέσθαι τὴν εἰρήνην, οὗτοι δὲ τοῖς μετὰ ταῦτ' ἀδικήμασι πάντ' ἀπολωλέκασι, τηνικαῦτα διήλλαξαι ;

2. For Greek prose :—

But when confirmation of the tidings left no room for doubt that the state was threatened by a new and unexpected danger,

a blaze of indignation ensued. Athens had never subjected Mytilene to harsh or overbearing rule: when almost every other state in the confederacy had been reduced to a position of dependence, Mytilene had enjoyed equal rights and had been treated with marked distinction, paying no tribute, and retaining its fortifications and its navy. Now on the flimsy pretext that they had no assurance of safety in the future, and were unwilling to go hand-in-hand with the Athenians in their schemes for the subjugation of the whole of Greece, their allies had seized the moment when they fancied Athens was tottering to its fall to revolt to the enemy.

MATHEMATICS.

SATURDAY, *3rd October* 1896.—2 *to* 5 P.M.

1. If O divide the line joining AB internally so that $m.OA = n.OB$, and P be any point whatever, shew that $mAP^2+nBP^2 = (m+n)OP^2+mAO^2+nBO^2$.

How is the theorem modified when O divides AB externally?

Find the locus of a point which moves so that the sum of the squares on the three tangents from it to three given circles remains constant.

2. Shew that the projections on the three sides of any triangle of any point Q on the circumcircle of the triangle lie on a straight line ("Pedal Line of Q").

If P be the orthocentre of the triangle, find the locus of the point where PQ meets the pedal line of Q.

3. Shew how to construct a circle which shall pass through two given points and touch a given circle.

Prove that all the circles which touch two given circles externally are orthogonal to a fixed circle.

4. Shew that the radii of the in- and escribed circles of a triangle are given by $\Delta \div s$, $\Delta \div (s-a)$, $\Delta \div (s-b)$, $\Delta \div (s-c)$, where a, b, c, s, Δ have the usual meanings.

Indicate how to construct a triangle when its exradii (radii of escribed circles) are given.

5. Define cross-ratio (Anharmonic ratio); and prove the fundamental theorem regarding the constant cross-ratio of a given pencil of four straight lines.

Shew that the three lines drawn from the vertices of a triangle to the three points in which the escribed circles touch its sides internally are concurrent.

6. Shew that the four straight lines drawn from the vertices of a tetrahedron to the centroids of the opposite faces are concurrent.

Find the ratio of the volume of the octohedron whose vertices are the middle points of the edges of a tetrahedron to the volume of the tetrahedron itself.

7. Shew that the angle subtended at the centre of any circle by an arc equal in length to the radius is constant (Radian); and calculate the value of this angle in degree measure, given $\pi = 3{\cdot}14159265$.

Two equal circles meet orthogonally; find an expression for the area by which they overlap.

8. Find an expression for the area of the curved surface of a right circular cone.

A solid is formed by placing base to base two equal right circular cones. If V be the volume of this solid, S its surface, and r the radius of the sphere inscribed in it, shew that $3V = rS$.

9. State the general rule for the distribution into partial products of the product of any number of factors each of which is a sum.

Apply this rule to distribute and arrange

$$(x+a_1)(x+a_2) \ldots . (x+a_n)$$

according to powers of x.

Find, without unnecessary calculation, the coefficient of x^5 in $(1+x+x^2+x^3+x^5)^4$.

10. Find the necessary and sufficient condition that

$$ax^2+2hxy+by^2+2gx+2fy+c$$

may be decomposable into two linear factors.

Given that the condition in question is satisfied, shew that the factors are real or imaginary according as h^2-ab is not less or less than zero.

Factorise $x^4+2x^3+3x^2+2x+1$.

11. Assuming that, if P and Q be two integral functions of x which are prime to each other, two integral functions A and B can be found, such that $AP+BQ\equiv 1$, shew that the proper algebraic fraction U/PQ can always be decomposed into $P'/P+Q'/Q$, where P'/P and Q'/Q are proper algebraic fractions.

Decompose $(3x^3-8x^2+5x+6)/(x-3)^2(x^2+1)$ into partial fractions.

12. Explain what is meant by a "solution" of a system of equations; and by the "equivalence" of two systems of equations.

Shew that the two systems $U=0$, $V=0$; $lU+mV=0$, $l'U+m'V=0$, l, m, l', m' being constants, are in general equivalent: and point out the exception.

Shew that, if any two of the three $x^2(y+z)+x$, $y^2(z+x)+y$, $z^2(x+y)+z$ be equal, then in general all three are equal; and express in its simplest form the equivalent relation between x, y, z. Is this theorem subject to exception?

13. Explain logically the steps by which an equation of the form $\sqrt{P}-\sqrt{Q}-\sqrt{R}=0$, where P, Q, R are integral functions of x, may be rationalised: and shew how the process of rationalisation may introduce solutions extraneous to the original equation.

Rationalise and solve

$$\sqrt{\left(\frac{x-a}{x-b}\right)}+\sqrt{\left(\frac{x-b}{x-a}\right)}=\sqrt{\left(\frac{x-b}{x-c}\right)}+\sqrt{\left(\frac{x-c}{x-b}\right)}.$$

14. Shew that $\sqrt{(x+yi)}$, where x and y are real and $i^2=-1$, can always be expressed in the form $u+vi$, where u and v are real.

Simplify $\frac{\sqrt{(3+2i)}}{3-2i}+\frac{\sqrt{(3-2i)}}{3+2i}$.

15. Shew how to sum the series $1^2+2^2 \ldots + n^2$. What is the technical meaning of the word "sum" in the present case?

The first term and common difference of an arithmetic progression are a and b respectively. A new series is formed whose first term is the sum of the 1st, 2nd, and 3rd terms of the *A.P.*, whose second term is the sum of the 2nd, 3rd, and 4th terms of the *A.P.*; and so on. If the sum of n terms of this latter series be p times the sum of n terms of the *A.P.*, find n.

HIGHER GEOMETRY.

FOR KELLAND PRIZE.

MONDAY, *5th October* 1896.—9 *to* 12 *o'clock.*

Candidates are requested to note on their papers the Bursary or Bursaries for which they compete.

1. Shew that it requires three conditions to fix the position in its plane of a plane figure known in every other way.

Explain why we may generally speak of the intersection of two curves lying in a plane, why we may not in general speak of the intersection of two curves in space.

Shew that an infinity of straight lines may be drawn to cut three given non-intersecting curves in space. Illustrate with the case when the given curves are straight lines.

2. Define the Image of a figure in a point or a straight line, and shew that a figure is congruent with its image.

Given two circles and a point P; shew how to draw through

P a straight line such that the part intercepted between the two circles has P for middle point.

Given of a quadrilateral the base and the lines joining each extremity of the base to the middle points of the non-adjacent sides, construct the quadrilateral.

3. A and B are two points on the same side of a line L. Find P in L such that $AP+PB$ is a minimum.

(α) A and B are two fixed points on the same side of C, a given curve (say, a circle). P is taken in C such that $AP+PB$ is a minimum or a maximum. Shew that P is such that the tangent through it to C makes equal angles with AP and PB.

(β) P, Q, R, S are four points on four circles respectively. Shew that if they are taken such that $PQRS$ is a quadrilateral of minimum perimeter, the tangents at its vertices to the four circles form a cyclic quadrilateral. (*Assume* α.)

4. Define the Inverse of a given figure, and shew that the angle of intersection of two curves is equal to that of their inverses.

Give some case or cases where a given figure is on the whole similar to its inverse.

Find a point such that the inverses of the sides of a triangle with respect to it as centre are circles of equal radii.

5. State and prove the characteristic properties of the nine-points circle.

6. Prove Poncelet's rule for calculating the area of a rectangular field one of whose sides is replaced by a curved line.

If P be any point on the curved side, PM the perpendicular on the opposite side, and P' a point on MP such that $MP' : MP$ is constant and equal to ρ, prove that the curve locus of P' cuts off an area with the other sides, which is ρ times that of the original area, while tangents to the curves at corresponding points P and P' are concurrent on the axis (the unaltered side).

Give a well-known illustration which is a particular case of this.

7. Define a pair of projective ranges, and shew that if three of the lines joining three pairs of corresponding points are concurrent, so are all such lines.

Any variable tangent to a circle cuts four fixed tangents in four points whose cross ratio is constant.

Shew how to draw a transversal to the four sides of a quadrilateral so that the cross ratio determined on it by the four sides has a given value.

8. Two triangles are congruent which agree in their medians.

Given the base and the sum of the medians from the extremities of the base, find the locus of the vertex, and determine the minimum length of the third median in terms of the given data.

9. Shew that the projection of a straight line on a given plane is a straight line, and that corresponding points on the line and its projection divide the lines in the same ratio.

Shew that any oblique plane section of a right circular cylinder possesses a centre, and diameters, and that the parallelogram formed by joining the extremities of two conjugate diameters is of constant area for the same section.

10. Prove that the tangent at any point P to a parabola bisects the angle between the focal distance of P and the perpendicular from P on the directrix.

MN is a fixed tangent to a given circle at a fixed point M, N a moveable point on MN. NT is the other tangent. Shew that the locus of the intersection of the normals at N and T to the fixed tangent and circle respectively is a parabola.

11. Shew that a common perpendicular may be drawn to two non-intersecting straight lines in space.

O is a fixed point outside a plane, MN any line whatsoever in the plane. OP is the perpendicular to MN from O, and OQ is drawn perpendicular to the plane OMN and equal to OP. Shew that the locus of Q is a right circular cylinder.

12. Shew that a pyramid has a volume equal to one third of the volume of the prism of like base and altitude.

AB and *CD* are two given lengths sliding freely on two fixed straight lines in space. Shew that the volume of the tetrahedron *ABCD* is constant.

Preliminary Examination Papers for Degrees in Medicine.

ENGLISH.

SATURDAY, *26th September* 1896.—9 A.M. *to* 12 NOON.

EIGHT *questions to be answered. 1 and 2 must be answered, with either 3 or 4 and either 5 or 6. The remaining* FOUR *may be any questions not already answered.*

1. Write an essay, from two to three pages long, on one of the following subjects:—

(*a*) The choice of a profession.

(*b*) The use and abuse of athletics.

(*c*) The reign of Queen Elizabeth *or* of Queen Victoria.

2. Paraphrase:—

> But there is no such man; for, brother, men
> Can counsel and speak comfort to that grief
> Which they themselves not feel; but, testing it,
> Their counsel turns to passion, who before
> Would give preceptial medicine to rage,
> Fetter strong madness in a silken thread,
> Charm ache with air, and agony with words:
> No, no; 'tis all men's office to speak patience
> To those that wring under the load of sorrow:
> But no man's virtue nor sufficiency,
> To be so moral when he shall endure
> The like himself. Therefore give me no counsel:
> My griefs cry louder than advertisement.

3. Give some account of *four* of the following:—

The various "Roman Walls" in Britain; the reign of Ethelred the Unready; the claims (briefly but exactly stated) of different claimants to the Scottish Crown after the death of the Maid of Norway; the dethronement of Edward II.; James (of Scotland) the Second's wars with his nobles; the reign of Richard III.; the regency of Mary of Guise.

4. Give some account of *four* of the following:—

The Barons' Wars; the English possessions in and claims upon France at different times between 1066 and 1453; the beginnings of Puritanism under Elizabeth; the Gowrie conspiracy; the chief battles of the great rebellion; the Treaty of Dover; the Seven Years' War as affecting Great Britain; the chief naval battles of the Revolutionary and Napoleonic Wars; the Anti-Corn Law agitation.

5. Give an account—brief but specifying the political divisions, the European nations to which in some cases they belong, their main cities, physical features and products—of the Western half of Asia, taking the dividing line from the mouth of the Yenisei to that of the Ganges.

6. Enumerate and give a brief account of the American possessions of Great Britain.

7. Correct or improve the following sentences, giving reasons for the changes you make:—

(*a*) Reconciliation was offered on conditions as moderate as was consistent with a permanent union.

(*b*) These orders being illegal they are generally communicated verbally.

(*c*) The Treaty is said to have received some modification in its passage through the Foreign Affairs Committee and that these modifications are likely to be adhered to by the Senate.

(*d*) He always preferred having his own views sustained

by the failure of his opponent's arguments than by the success of his own.

8. Give a general analysis of the following passage and parse the words in italics:—

Though *later* born than to have known the days
Wherein your father flourished, yet by you,
Madam, *methinks*, I see him *living* yet;
So well your words his noble virtues praise,
That all both judge you to relate them *true*
And to possess them, honoured Margaret.

9. State the various ways in which the gender and the number of nouns are indicated in modern English.

Or,

In what circumstances does the Subject *follow* the Predicate in an English sentence, and in what circumstances does the Object *precede* the Predicate?

10. Give the derivation and literal meaning of *six* of the following words: *nightingale, pathology, economy, clinical, morbid, dissect, nostril, pulmonary, zoological, crafty.*

11. Name the authors of *six* of the following works, and give some account of *one* of them: *Coriolanus, Paradise Regained, The Lord of the Isles, David Copperfield, Westward Ho, Gareth and Lynette, A New Way to Pay Old Debts, The Master of Ballantrae, Confessions of an Opium Eater, The Bible in Spain.*

12. (*a*) Classify the chief forms of Government in British Colonies and Dependencies.

Or,

(*b*) Write notes on the following Parliamentary terms: *Select committee, hybrid committee, grand committee, committee of selection, committee of the whole house.*

SATURDAY, *27th March* 1897.—9 A.M. *to* 12 NOON.

EIGHT, *and not more than* EIGHT, *questions are to be answered.* 1 *and* 2 *must be answered, with either* 3 *or* 4 *and either* 5 *or* 6. *The remaining* FOUR *may be any questions not already answered.*

1. Write an essay, from two to three pages long, on one of the following subjects:—

(*a*) "To do a great right, do a little wrong."

(*b*) The utility of polar expeditions.

(*c*) The life and character of Oliver Cromwell or of the Young Pretender.

2. Paraphrase:—

'Tis not unknown to you, Antonio,
How much I have disabled mine estate,
By something showing a more swelling part
Than my faint means would grant continuance:
Nor do I now make moan to be abridged
From such a noble rate: but my chief care
Is to come fairly off from the great debts
Wherein, my time something too prodigal
Hath left me gaged. To you, Antonio,
I owe the most, in money and in love,
And from your love I have a warranty
To unburden all my plots and purposes
How to get clear of all the debts I owe.

3. Give some account of *four* of the following:—The Danish Kings of England, the reign of William II., David I. of Scotland's War with England, the Lollards, Jack Cade's Rebellion, the Battle of Flodden, the Babington Conspiracy, the Casket Letters.

4. Give some account of *four* of the following:—The Five Members, Scotland under Charles II., Union of England and Scotland, Clive in India, Waterloo, the reign of William IV., the Crimean War, Majuba Hill.

5. What parts of Africa are held by France? Give some account of these possessions.

6. Give a list of the Australian Colonies, and describe fully any one of them.

7. Correct, or improve, the following sentences, giving reasons for any changes you may make :—

(*a*) Mr. Courthope does not try to extenuate or explain away Pope's moral delinquencies, but to put them in their proper place as parts of a very complex character.

(*b*) To this gas he gave the name "fixed air," and which we now call carbon dioxide.

(*c*) Evelyn is one of those whose reputation, in his own day, was far higher than his fame or influence have since proved to be.

(*d*) An ordinary reader would scarcely suppose that Shadwell, who is here meant by MacFlecknoe, was worth being chastised, and that Dryden, descending to such game, was like an eagle stooping to catch flies.

8. Give a *general* analysis of the following passage, and parse the words in italics :—

We hurry to the river we *must cross*,
And *swifter* downward every footstep wends ;
Happy who reach it *ere* they count the loss
Of *half* their faculties and half their friends.
When we are come to it, the stream
Is not so dreary *as* they deem
Who look on it from haunts too dear ;
The weak from Pleasure's baths feel most its chilling air.

9. Give examples of nouns (*a*) used only in the plural, (*b*) plural in form but construed as singular, (*c*) singular in form but construed as plural, (*d*) having two plural forms differing in meaning, (*e*) having one plural form with two different meanings.

10. (*a*) Derive *eight* of the following words :—metaphor,

wanton, apathy, couch, enemy, malady, enormous, prose, chair, paradox, eclipse, sedition.

Or (b) Point out, and give the force of, the prefixes and the suffixes in the following words:—euthanasia, strange, bedazzle, syllable, aphelion, negotiate, poetaster, bliss, fruiterer, knowledge, integrate, absenteeism.

11. What do you know of *any three* of the following characters:—Captain Absolute, Turveydrop, Lady Kew, Squire Hardcastle, Rosalind, Edie Ochiltree, Gareth Florimel?

12. Give a brief account of the composition and the privileges of the House of Lords.

LATIN—GREEK—MATHEMATICS.

The Papers in Latin, Greek, and Mathematics are the same as the Lower Standard Papers in these subjects for Degrees in Arts and Science.

FRENCH.

TUESDAY, 29*th September* 1896.—3 *to* 6 P.M.

I.

Translate into English :—

Son humeur tranquille et débonnaire le rendait insensible à toutes les petites délicatesses qui heurtent la vanité, et qui blessent l'amour propre de la plupart des hommes. On eût dit qu'il était incapable de sentir même la raillerie piquante : on en a déjà vu quelques exemples. Aussi ses amis avaient-ils le droit de lui faire ou de lui dire tout ce qu'ils voulaient; jamais il ne s'en fâchait. Il souffrait aisément leur mauvaise humeur, et ne leur tenait que des propos obligeants, même dans les occasions où la patience peut échapper aux plus modérés. Le peu d'estime qu'il avait de lui-même, son humilité naturelle, capable de faire

honneur à la dévotion et à la piété même qu'il n'avait pas, lui dérobaient la connaissance de son mérite et la sublimité de ses talents. Ses productions étaient les fruits d'un génie aisé; elles coulaient tellement de source, et lui coûtaient si peu d'efforts, qu'il ne faisait pas plus d'attention à ce qu'elles valaient, qu'il en faisait à ce qui le regardait lui-même.

II.

1. Translate into French :—

Night is a dead, monotonous period under a roof; but in the open world it passes lightly, with its stars and dews and perfumes, and the hours are marked by changes in the face of Nature. What seems a kind of temporal death to people choked between walls and curtains, is only a light and *living*[1] slumber to the man who sleeps a-field. All night long he can hear Nature *breathing*[2] deeply and freely; even as she *takes her*[3] rest, she turns and *smiles*[4]; and there is one stirring hour unknown to those who dwell in houses, when a wakeful influence goes abroad over the sleeping hemisphere and all the outdoor world are on their feet. It is then that the cock first crows, not this time to announce the *dawn*,[5] but like a cheerful watchman speeding the course of night. STEVENSON.

2. (*a*) He will never succeed in escaping from his enemies.
(*b*) His master taught him a little Latin.
(*c*) He was married on the 3rd of May, 1894.
(*d*) A mere accident caused him to make this discovery.
(*e*) I am perhaps the only friend he ever had.
(*f*) He would not say what he was laughing at.

III. GRAMMAR.

Answer any FIVE *of the following.*

(*a*) Write in the plural: Le fou furieux, l'amiral français, le bail du château, ce caillou bleu.

[1] full of life. [2] which breathes. [3] gives herself. [4] add: in her dreams. [5] *aube*, f.

(*b*) Write in the feminine: Le loup féroce, l'ambassadeur d'Italie, le pêcheur inquiet, le vieux charmeur de serpents.

(*c*) Translate: He took (*prendre*), we are worth (*valoir*), I was wishing that he should finish, the conquered (*conquérir*) provinces, the conquered (*vaincre*) enemy, let him go alone.

(*d*) Account for the plural of the past participles in: Les livres qu'il nous a vendus, les pommes sont tombées, les coups qu'ils se sont donnés.

(*e*) Account for the use of the preterite tense in: Coriolan menaça Rome, and for the use of the past indefinite in: L'orage d'hier a menacé Rome d'une destruction complète.

(*f*) 1. What mood is used after verbs expressing a wish? 2. Give an example of correct substitution of the infinitive for that mood.

(*g*) Give *two* sentences in which the negative particle *ne* shall be properly used in connection with a verb in the subjunctive.

TUESDAY, 30*th March* 1897.—3 *to* 6 P.M.

Translate into French:—

I. Schools in China are usually kept by private gentlemen. The government provides for advanced scholars only. But since the one qualification for office is education, and the avenue to literary distinction and public honours lies through competitive examinations, the encouragement that the government extends to education and learning can be estimated only by that eager pursuit of knowledge, which is common to all classes, and by the veneration in which scholars and scholarship are held. Therefore it is not strange that schools are to be found everywhere, in small hamlets as in large towns, although the government appropriates no funds for the establishment of

common schools; and although no such thing is known as "compulsory education," there is a general desire, even among the poorest classes, to give their children "a little schooling." The schoolmaster in China must be absolute. He is monarch of all he surveys; in his sphere there is none to dispute his rights.

II. 1. Let us go home.
2. I have been ill for three weeks.
3. He was caught in the act.
4. Come and tell me what has happened.
5. What time is it? Ten minutes to four.
6. This wall is twelve feet high.
7. Try and get his consent.
8. I was told that he had been waiting for you.
9. She was weeping for joy.
10. It is you to play.

GRAMMAR.

I. Distinguish between: Servir de *and* se servir de—Douter *and* se douter—Convenir à *and* convenir de—Arriver à (before a verb) *and* arriver de—Répondre à *and* répondre de—Compose short sentences to illustrate the difference of meaning.

II. Give the feminine of the following words:—*Aigu, malin, favori, vieux, net, complet, vengeur, conducteur, hôte, grec.*

III. Parse the following verbal forms:—*J'acquerrai—Va. Nous cueillions—Il plut—Veuille—Il faudra—Qu'ils bussent—Que nous missions—Que je me tusse—Il sied.*

IV. State the rules for the concord of the following participles:—

Les ennemis ont *fui.*
Les ennemis se sont *enfuis.*
Les deux heures que cet orateur a *parlé.*
Je les ai *entendus* entrer.
Les fleurs que j'ai *promis* de vous envoyer.

Translate into English :—

I. Ce fut dans les derniers jours d'octobre qu'Annibal commença à gravir les Alpes. L'aspect de ces montagnes était vraiment effrayant : leurs masses couvertes de neige et de glace, confondues avec le ciel; à peine quelques misérables cabanes éparses sur les pointes de rochers : des hommes à demi-sauvages ; le bétail, les chevaux, les arbres, grêles et rapetissés ; en un mot la nature vivante et la nature inanimée frappées d'un égal engourdissement. Tant qu'elle chemina dans un vallon spacieux et découvert, l'armée carthaginoise fut tranquille et nul ennemi n'inquiéta sa marche ; mais parvenue dans un endroit où le vallon n'offrait pour issue qu'un étroit passage, elle aperçut des bandes nombreuses de montagnards qui couvraient les hauteurs. . . . Ce passage ne pouvait être forcé sans les plus grands périls, et si les montagnards, dressant mieux leur embuscade, fussent tombés à l'improviste sur l'armée, elle y serait restée presque tout entière. (A. THIERRY.)

II. Il y a entre l'homme et les murs qu'il a longtemps habités mille secrètes intimités à se dire, qui ne permettent jamais de se revoir, après de longues absences, sans qu'une conversation qui semble véritablement animée et réciproque ne s'établisse aussitôt entre eux. Les murs semblent reconnaître et appeler l'homme, comme l'homme reconnaît et embrasse les murs. Les anciens avaient senti et exprimé ce mystère. Ils disaient: *genius loci, l'âme du lieu* ; ils avaient les *dieux lares*, la divinité du foyer. Cette divinité s'est réfugiée aujourd'hui dans le cœur ; mais elle y est, elle y parle, elle y pleure, elle y chante, elle s'y plaint, elle s'y console. Je ne l'ai jamais mieux entendue et sentie que ce matin. (LAMARTINE.)

GERMAN.

WEDNESDAY, 30*th September* 1896.—3 *to* 6 P.M.

I. Translate into English :—

Der „Fram" verließ in der Nacht zum 4. Auguſt 1893, die

Straße zwischen Novaja-Semlja und dem Festlande und mußte sich seinen Weg an der Küste Sibiriens durch viel Eis bahnen. Es wurden daselbst mehrere neue Inseln entdeckt. Am 15. September befanden wir uns vor dem „Olenek," es war aber zu spät zum Landen, um die dort bereit gehaltenen Hunde an Bord zu nehmen; dies hätte uns einen Aufenthalt von einem ganzen Jahre kosten können. An den Neusibirischen Inseln vorbei drangen wir nun in's offene Meer vor. Hier machten wir am 22. September 1893, das Schiff an einem Eisfelde fest und ließen uns vom Eise einschließen. Getrieben vom Eise ging es nun langsam in nordwestlicher Richtung weiter, wie es der Plan der Expedition wollte. Wir hatten gewaltigen Eisdruck, aber der Fram war im Stande jeden Druck auszuhalten. Die Temperatur fiel schnell und hielt sich den ganzen Winter hindurch niedrig. Wochenlang war das Quecksilber gefroren. Alle Mitglieder der Expedition waren während der ganzen Reise bei bester Gesundheit. Das elektrische Licht wurde durch die an Bord befindliche Windmühle erzeugt. Die Zeit verlief angenehm und unter den besten Verhältnissen. Jeder that freudig seine Pflicht. Bessere Männer für eine Expedition könnten schwerlich gefunden werden.—NANSEN.

II. Translate into German :—

1. Moltke was fond of travelling even in his (old) age. On his journeys he always wore a plain dark suit and a round felt hat, and it was very possible to take him for an old schoolmaster. Once he was staying at a small town in Switzerland. Taking a walk through the forest to the nearest village, he entered a country inn to refresh himself. The innkeeper sat down beside him and began a conversation. You are a visitor to the town, I presume?—Yes.—Moltke is said to be there.—Yes, he is there.—Have you ever seen him?—Yes, often.—What does he look like?—Why, what should he look like?—Just like one of us.

2. (*a*) He told me not to come if the weather was bad.

(*b*) May I lend him the book when I have read it?
(*c*) When will you come home? When you ask me to.
(*d*) We saw him often when he did not yet know us.
(*e*) Ask him if he will take a walk with us to-night.

III. Grammar.

1. Give the third person singular indicative of the present, imperfect, and perfect, and the second of the imperative of *four* of the following: treten, rennen, heißen, aufſtehen, vergeſſen, zerbrechen.

2. Form four short sentences each beginning with *one* of the following conjunctions (adding the meaning in each case): während, zwar, ſondern, obgleich, deshalb, denn.

3. Decline singular and plural of: mancher junge Menſch.

4. Form short phrases showing the cases governed by the following prepositions: ohne, durch, für, bei, ſeit, vor, wegen, anſtatt.

5. Mention four substantives with different meanings according to a change of gender or number.

Wednesday, 31*st March* 1897.—3 *to* 6 p.m.

I. Translate into German:—

1. I remember riding from Buffalo to the Niagara Falls, and I said to a gentleman, "What river is that, sir?" "That is Niagara River." "Well, it is a beautiful stream," said I, "bright and fair, and glassy (wie ein Spiegel). How far off are the rapids?" (Der Fall). "Only a mile or two." "Is it possible that only a mile or two we shall find the water in the turbulence which it must show when near the falls?" "You will find it so, sir." And so I found it; and that first sight I shall never forget. Now, launch your bark on that Niagara river; it is bright, smooth, and beautiful. There is a ripple at the bow, the silvery wake you leave behind adds to your enjoyment.

Down the stream you glide—oars, sails, and helm in proper trim (Ordnung), and you set out on your pleasure excursion. Now you see the water foaming all around. See how fast you pass that point. Up with the helm! Now turn!

JOHN B. GOUGH.

2. (*a*) Snow has been falling here for the last three days.
(*b*) Can you skate? Come, let us have a try, the ice is quite firm.
(*c*) There is no fool like an old fool.
(*d*) The study of medicine is an elevating study.

II.—GRAMMAR.

1. Give the principal tenses (infinitive, 1st person singular imperfect and past participle) of: liegen, legen, lügen, sitzen, setzen, ausgehen, heiraten, frühstücken, reisen, reißen.

2. Give the double plurals, with their meanings, of: Bank, Wort, Strauß, das Band, Mann, Gesicht.

3. *Before* and *after* may be prepositions, adverbs, or conjunctions: form six German sentences introducing both words in their various senses.

4. Describe shortly the difference between the usage of the definite article in German and English.

5. Decline, singular and plural (where possible), of: ich, derjenige, das Herz, guter Herr, wer, was.

III. Translate into English:—

1. Man kann sich nicht genug über die Menge und Mannigfaltigkeit (*variety*) der Pflanzen verwundern, mit welchen die Natur alle Jahre die Erde bekleidet. In dem kleinen Raume, den das Auge auf einmal überschauen kann, welch eine Vielfachheit der Gestalten, welch ein Spiel der Farben, welche Fülle in der Werkstätte (*workshop*) der reichsten Kraft und der unerforschlichen Weisheit! Nicht weniger muß man sich wundern über die Geschwindigkeit, mit welcher die Natur jede leere Stelle auf den öden Feldern, verlassenen Wegen,

kahlen Felsen, Mauern, Dächern, wo nur eine Handvoll fruchtbarer Erde hingefallen ist, aussäet (*sows*) und mit Gras, Kräutern, Stauden und Buschwerk besetzt. Das sieht man oft und achtet's nicht, eben weil man es von Kindheit an so sieht; die größte Weisheit verräth sich in der einfachen und natürlichen Einrichtung der Dinge, und man erkennt sie nicht, eben weil alles so einfach und natürlich ist.

HEBEL.

2. Dies war die berühmte Hermannsschlacht, die unweit des Städtchens Detmold vorgefallen ist. Als Kaiser Augustus Nachricht davon erhielt, rief er untröstlich, die Hände ringend, einmal über das andere aus: „O Varus! Gieb mir meine Legionen wieder!" Er rannte dabei mit dem Kopfe gegen die Wand und ließ sich zum Zeichen der Trauer einige Monate lang Bart und Haare wachsen. In ganz Rom und seinen Umgebungen entstand die größte Bestürzung (*consternation*), denn man glaubte, die furchtbaren Deutschen seien schon an den Stadtthoren.

JERRER.

Papers for Ordinary Degree of M.A.

I.—LANGUAGE AND LITERATURE.

LATIN.

FIRST PAPER.

TUESDAY, 30*th March* 1897.—9 *to* 11 *o'clock.*

I. Translate :—

(*a*) Portitor has horrendus aquas et flumina servat
Terribili squalore Charon, cui plurima mento
Canities inculta iacet, stant lumina flamma,
Sordidus ex umeris nodo dependet amictus.
Ipse ratem conto subigit velisque ministrat,
Et ferruginea subvectat corpora cumba,
Iam senior, sed cruda deo viridisque senectus.
Huc omnis turba ad ripas effusa ruebat,
Matres atque viri defunctaque corpora vita
Magnanimum heroum, pueri innuptaeque puellae
Impositique rogis iuvenes ante ora parentum.

(*b*) Translate, with short notes :—

(1) Gnosius haec Rhadamanthus habet durissima regna
Castigatque auditque dolos subigitque fateri,
Quae quis apud superos, furto laetatus inani,
Distulit in seram commissa piacula mortem.

(2) His fretus non legatos neque prima per artem
Temptamenta tui pepigi.

(3) Parte alia ventis et dis Agrippa secundis
Arduus agmen agens ; cui (belli insigne superbum)
Tempora navali fulgent rostrata corona.

II. Translate, with short notes :—

(*a*) Quantum distet ab Inacho
Codrus pro patria non timidus mori

Narras et genus Aeaci
Et pugnata sacro bella sub Ilio;
Quo Chium pretio cadum
Mercemur, quis aquam temperet ignibus,
Quo praebente domum et quota
Paelignis caream frigoribus, taces.
Da lunae propere novae,
Da noctis mediae, da, puer, auguris
Murenae: tribus aut novem
Miscentur cyathis pocula commodis.
(*b*) Dixitque tandem perfidus Hannibal:
'Cervi luporum praeda rapacium,
Sectamur ultro, quos opimus
Fallere et effugere est triumphus.
Gens, quae cremato fortis ab Ilio
Iactata Tuscis aequoribus sacra
Natosque maturosque patres
Pertulit Ausonias ad urbes,
Duris ut ilex tonsa bipennibus
Nigrae feraci frondis in Algido,
Per damna, per caedes, ab ipso
Ducit opes animumque ferro.

III. Translate:—

(*a*) Quid ego de commentariis infinitis, quid de innumerabilibus chirographis loquar? quorum etiam institores sunt, qui ea tamquam gladiatorum libellos palam venditent. Itaque tanti acervi nummorum apud istum construuntur, ut iam expendantur, non numerentur pecuniae. At quam caeca avaritia est! Nuper fixa tabula est, qua civitates locupletissimae Cretensium vectigalibus liberantur, statuiturque, ne post M. Brutum pro consule sit Creta provincia. Tu mentis es compos? tu non constringendus? An Caesaris decreto Creta post M. Bruti decessum potuit liberari, quum Creta nihil ad Brutum Caesare vivo pertineret? At hujus

venditione decreti—ne nihil actum putetis—provinciam Cretam perdidistis. Omnino nemo ullius rei fuit emptor cui defuerit hic venditor.

(*b*) Translate, with short notes :—

(1) Sed qui istuc tibi venit in mentem ? Ego enim amplius sestertium ducentiens acceptum hereditatibus rettuli.

(2) Tantus igitur te stupor oppressit vel, ut verius dicam, tantus furor, ut primum, quum sector sis isto loco natus, deinde quum Pompeii sector, non te exsecratum populo Romano, non detestabilem, non omnes tibi deos, non omnes homines et esse inimicos et futuros scias ?

IV. Translate :—

(*a*) Othoni tamen armari plebem nuntiabatur : ire praecipites et occupare pericula iubet. Igitur milites Romani, quasi Vologesen aut Pacorum avito Arsacidarum solio depulsuri ac non imperatorem suum inermem et senem trucidare pergerent, disiecta plebe, proculcato senatu, truces armis, rapidi equis forum inrumpunt. Nec illos Capitolii adspectus et imminentium templorum religio et priores et futuri principes terruere quo minus facerent scelus, cuius ultor est quisquis successit.

(*b*) Translate, with notes :—

Sed Otho pontificatus auguratusque honoratis iam senibus cumulum dignitatis addidit, aut recens ab exilio reversos nobiles adulescentulos avitis ac paternis sacerdotiis in solacium recoluit. Redditus Cadio Rufo, Pedio Blaeso, Saevino Prisco senatorius locus. Repetundarum criminibus sub Claudio ac Nerone ceciderant : placuit ignoscentibus verso nomine, quod avaritia fuerat, videri maiestatem, cuius tum odio etiam bonae leges peribant.

V. Translate :—

(*a*) Festino ad nostros et regem transeo Ponti
Et Croesum, quem vox iusti facunda Solonis
Respicere ad longae iussit spatia ultima vitae.

Exilium et carcer Minturnarumque paludes
Et mendicatus victa Carthagine panis
Hinc causas habuere. Quid illo cive tulisset
Natura in terris, quid Roma beatius unquam,
Si circumducto captivorum agmine et omni
Bellorum pompa animam exhalasset opimam,
Quum de Teutonico vellet descendere curru?

(*b*) Translate, with short notes:—

(1) Consumptis opibus vocem, Damasippe, locasti
Sipario, clamosum ageres ut Phasma Catulli.

(2) Nota mathematicis genesis tua; sed grave tardas
Exspectare colus: morieris stamine nondum
Abrupto.

VI. Answer *any two* of the following:—

1. Describe briefly the First Punic War *or* the First and Second Macedonian Wars.

2. Give some account of the Equites, and of the part which they played in politics during the last century of the Republic.

3. What were the chief events which happened in Spain during the period 60 B.C.–14 A.D.?

4. What measures did Augustus take to consolidate his power in the four years which followed the battle of Actium?

VII. Answer *any one* of the following:—

1. What do you know of these works of Cicero, and of the circumstances of their production:—*In Verrem*, *Pro Lege Manilia*, *Pro Milone*, *De Officiis*?

2. Give a brief account of Horace's literary life, with special reference to the dates of publication of the Odes.

3. Compare Tacitus with any other great historian known to you.

Or,

Consider the value of Juvenal's moral teaching, and collect some of the precepts on which he seems to lay most stress.

SECOND PAPER.

TUESDAY, *30th March* 1897.—11.30 A.M. *to* 1.30 P.M.

1. For Latin Prose :—

The tidings of the revolt of Amphipolis filled Athens with dismay. The place was, in fact, the key to their Thracian possessions, and the loss of this position increased the readiness of the allies to revolt as much as it lowered the reputation of Athens. The urgency of the peril seemed rather to paralyse the Athenians than to rouse them. Nothing was done beyond despatching a few troops to reinforce the garrisons in the Thracewaird cities ; and further disasters were averted only by the reluctance of the Spartans to encourage schemes which probably they did not very clearly understand. The story went that Cleon accused Thucydides of incapacity or wilful mismanagement, and that the historian, failing to defend himself, was sentenced to banishment. From his own words, we do not learn that he was formally sentenced at all ; but he admits that he spent twenty years in exile, and his silence on the share of Cleon in the matter seems to attest the self-condemnation of the general. Had he felt the injustice of the charge and the sentence, Thucydides was not the man to rest quiet under an iniquitous imputation.

2. Translate into English :—

Haemoniae matres pro gnatis dona receptis
Grandaevique ferunt patres, congestaque flamma
Tura liquefaciunt, inductaque cornibus aurum
Victima vota cadit. Sed abest gratantibus Aeson,
Iam propior leto fessusque senilibus annis.
Cum sic Aesonides : "O cui debere salutem
Confiteor, coniunx, quamquam mihi cuncta dedisti,
Excessitque fidem meritorum summa tuorum :
Si tamen hoc possunt,—quid enim non carmina possint ?—

Deme meis annis, et demptos adde parenti."
Nec tenuit lacrimas. Mota est pietate rogantis,
Dissimilemque animum subiit Aecta relictus.
Nec tamen affectus tales confessa "Quod" inquit
"Excidit ore pio, coniunx, scelus! ergo ego cuiquam
Posse tuae videar spatium transcribere vitae?
Nec sinat hoc Hecate, nec tu petis aequa. Sed isto,
Quod petis, experiar maius dare munus, Iäson.
Arte mea soceri longum temptabimus aevum,
Non annis revocare tuis. Modo diva triformis
Adiuvet, et praesens ingentibus annuat ausis."

GREEK.

FIRST PAPER.

WEDNESDAY, 31*st March* 1897.—9 *to* 11 *o'clock.*

I. Translate, with a note on the words underlined :—

ἤδη μὲν πολέων φόνῳ ἀνδρῶν ἀντεβόλησας,
μουνὰξ κτεινομένων καὶ ἐνὶ κρατερῇ ὑσμίνῃ·
ἀλλά κε κεῖνα μάλιστα ἰδὼν ὀλοφύραο θυμῷ,
ὡς ἀμφὶ κρητῆρα τραπέξας τε πληθούσας
κείμεθ' ἐνὶ μεγάρῳ, δάπεδον δ' ἅπαν αἵματι θῦεν.
οἰκτροτάτην δ' ἤκουσα ὅπα Πριάμοιο θυγατρὸς,
Κασσάνδρης, τὴν κτεῖνε Κλυταιμνήστρη δολόμητις
ἀμφ' ἐμοί· αὐτὰρ ἐγὼ ποτὶ γαίῃ χεῖρας ἀείρων
βάλλον ἀποθνήσκων περὶ φασγάνῳ· ἡ δὲ κυνῶπις
νοσφίσατ', οὐδέ μοι ἔτλη ἰόντι περ εἰς Ἄϊδαο
χερσὶ κατ' ὀφθαλμοὺς ἐλέειν σύν τε στόμ' ἐρεῖσαι.

Explain the form *μουνάξ*, citing any other forms in *-αξ*.
What is the precise meaning of *θύω* and *τλάω* in the *Odyssey*?
Scan *νοσφίσατ', οὐδέ μοι ἔτλη ἰόντι περ εἰς Ἄϊδαο*, and remark on any peculiarities.

II. Translate, with a note on the words underlined :—

(1) *καὶ μὴν ἀριθμὸν ἔξοχον σοφισμάτων*
ἐξηῦρον αὐτοῖς, γραμμάτων τε συνθέσεις,
μνήμην θ' ἁπάντων μουσομήτορ' ἐργάτιν
κἄζευξα πρῶτος ἐν ζυγοῖσι κνώδαλα
ζεύγλαισι δουλεύοντα σώμασιν θ', ὅπως
θνητοῖς μεγίστων διάδοχοι μοχθημάτων
γένοινθ', ὑφ' ἅρμα τ' ἤγαγον φιληνίους
ἵππους, ἄγαλμα τῆς ὑπερπλούτου χλιδῆς.
θαλασσόπλαγκτα δ' οὔτις ἄλλος ἀντ' ἐμοῦ
λινόπτερ' ἡῦρε ναυτίλων ὀχήματα.
τοιαῦτα μηχανήματ' ἐξευρὼν τάλας
βροτοῖσιν αὐτὸς οὐκ ἔχω σόφισμ' ὅτῳ
τῆς νῦν παρούσης πημονῆς ἀπαλλαγῶ.

(2) *τὸ μὲν μέγιστον, εἴ τις ἐς νόσον πέσοι,*
οὐκ ἦν ἀλέξημ' οὐδέν, οὔτε βρώσιμον,
οὐ χριστὸν, οὔτε πιστὸν, ἀλλὰ φαρμάκων
χρείᾳ κατεσκέλλοντο, πρίν γ' ἐγώ σφισιν
ἔδειξα κράσεις ἡπίων ἀκεσμάτων.

Scan the lines :—

(*a*) *ἑκατογκάρανον πρὸς βίαν χειρούμενον.*

(*b*) *καὶ δὴ πρόχειρα ψάλια δέρκεσθαι πάρα.*

III. Translate :—

(1) *ὁ μὲν γὰρ μεγαλόψυχος δικαίως καταφρονεῖ (δοξάζει γὰρ ἀληθῶς), οἱ δὲ πολλοὶ τυχόντος. οὐκ ἔστι δὲ μικροκίνδυνος οὐδὲ φιλοκίνδυνος διὰ τὸ ὀλίγα τιμᾶν. μεγαλοκίνδυνος δέ, καὶ ὅταν κινδυνεύῃ, ἀφειδὴς τοῦ βίου ὡς οὐκ ἄξιον ὂν πάντως ζῆν. καὶ οἷος εὖ ποιεῖν, εὐεργετούμενος δ' αἰσχύνεται· τὸ μὲν γὰρ ὑπερέχοντος, τὸ δ' ὑπερεχομένου. καὶ ἀντευεργετικὸς πλειόων· οὕτω γάρ οἱ προσοφλήσει ὁ ὑπάρξας καὶ ἔσται εὖ πεπονθώς. δοκοῦσι δὲ καὶ μνημονεύειν οἷ ἂν ποιήσωσιν εὖ, ὧν δ' ἂν πάθωσιν οὔ (ἐλάττων γὰρ ὁ παθὼν εὖ τοῦ ποιήσαντος, βούλεται δ' ὑπερέχειν), καὶ τὰ μὲν ἡδέως ἀκούειν, τὰ δ' ἀηδῶς· διὸ καὶ τὴν Θέτιν οὐ λέγειν τὰς εὐερ-*

γεσίας τῷ Διὶ οὐδ' οἱ Λάκωνες πρὸς τοὺς Ἀθηναίους, ἀλλ' ἃ πεπόνθεσαν εὖ.

Summarise the argument in your own words.

(2) *ὁ δὲ μεγαλοπρεπὴς ἐπιστήμονι ἔοικεν· τὸ πρέπον γὰρ δύναται θεωρῆσαι καὶ δαπανῆσαι μεγάλα ἐμμελῶς. ὥσπερ γὰρ ἐν ἀρχῇ εἴπομεν, ἡ ἕξις ταῖς ἐνεργείαις ὁρίζεται, καὶ ὧν ἐστίν. αἱ δὴ τοῦ μεγαλοπρεποῦς δαπάναι μεγάλαι καὶ πρέπουσαι. τοιαῦτα δὴ καὶ τὰ ἔργα· οὕτω γὰρ ἔσται μέγα δαπάνημα καὶ πρέπον τῷ ἔργῳ. ὥστε τὸ μὲν ἔργον τῆς δαπάνης ἄξιον δεῖ εἶναι, τὴν δὲ δαπάνην τοῦ ἔργου, ἢ καὶ ὑπερβάλλειν.*

Explain the sentence underlined.

Define the Aristotelian terms *ἐνέργεια, ἕξις, πάθος, προαίρεσις.*

IV. Translate, explaining any points of difficulty :—

(1) *ἡ σκηνὴ τοῦ μαρτυρίου ἦν ἐν τοῖς πατράσιν ἡμῶν ἐν τῇ ἐρήμῳ, καθὼς διετάξατο ὁ λαλῶν τῷ Μωσῇ, ποιῆσαι αὐτὴν κατὰ τὸν τύπον ὃν ἑωράκει· ἣν καὶ εἰσήγαγον διαδεξάμενοι οἱ πατέρες ἡμῶν μετὰ Ἰησοῦ ἐν τῇ κατασχέσει τῶν ἐθνῶν.*

(2) *εἰ μὲν οὖν Δημήτριος καὶ οἱ σὺν αὐτῷ τεχνῖται πρός τινα λόγον ἔχουσιν, ἀγοραῖοι ἄγονται, καὶ ἀνθύπατοί εἰσιν· ἐγκαλείτωσαν ἀλλήλοις.*

(3) *ἀναχθέντες οὖν ἀπὸ τῆς Τρωάδος, εὐθυδρομήσαμεν εἰς Σαμοθρᾴκην, τῇ τε ἐπιούσῃ εἰς Νεάπολιν, ἐκεῖθέν τε εἰς Φιλίππους, ἥτις ἐστὶ πρώτη τῆς μερίδος τῆς Μακεδονίας πόλις κολώνια.*

Explain *ἠν ἀστεῖος τῷ θεῷ* -*ὁ στρατηγὸς τοῦ ἱεροῦ—ἐτροποφόρησεν αὐτοὺς ἐν τῇ ἐρήμῳ—πολλοῦ κεφαλαίου τὴν πολιτείαν ταύτην ἐκτησάμην—*Ἀσιάρχης*—πολίταρχης—*Ἑλληνιστής.

V. Answer any *two* of the following :—

(1) Describe the causes and course of the Third Sacred War.

(2) What were the causes that led to the break-down of the Greek *πόλεις*?

(3) What do we know of the other plays of the Trilogy of which the *Prometheus Vinctus* forms a part?

Contrast the treatment of the same theme by any modern writer.

VI. Answer any *one* of the following :—

(1) Is the μεγαλόψυχος to be regarded as Aristotle's ideal of human excellence? If so, compare him with modern standards.

(2) The doctrine of the mean is said to make only a quantitative difference between vice and virtue. Examine this in the light of *Ethics* IV.

(3) Compare Homer's conception of Hades with later Greek views.

(4) What events (as recorded in the *Acts*) happened at Thessalonica, Puteoli, Lydda, Miletus, Alexandria, Troas, Caesarea?

Or,

Show from St. Paul's addresses in the *Acts* his power of adapting himself to different audiences.

SECOND PAPER.

WEDNESDAY, 31*st March* 1897.—11.30 *to* 1.30 *o'clock.*

I. For Greek Prose :—

Wise is rather the attribute of a prince than learned or good. The learned man profits others rather than himself; the good man rather himself than others; but the prince commands others, and doth himself. The wise Lycurgus gave no law but what himself kept. Sylla and Lysander did not so; the one, living extremely dissolute himself, enforced frugality by the laws; the other permitted those licenses to others which himself abstained from. But the prince's prudence is his chief art and safety. In his counsels and deliberations he foresees the future times; in the equity of his judgment he hath remembrance of the past, and knowledge of what is to be done or avoided for the present. Hence the Persians gave out their Cyrus to have been nursed by a dog; showing that wisdom must accompany fortitude, or it ceases to be fortitude and puts on the name of rashness.

Unseen Passage.

II. Translate:—

ΕΧ. Ταῦτα δὴ πάντα προθυμήθητι ὡς σαφέστατα ἡμῖν ἀπαγγεῖλαι, εἰ μή τίς σοι ἀσχολία τυγχάνει οὖσα.

ΦΑΙΔ. Ἀλλὰ σχολάζω γε καὶ πειράσομαι ὑμῖν διηγήσασθαι· καὶ γὰρ τὸ μεμνῆσθαι Σωκράτους καὶ αὐτὸν λέγοντα καὶ ἄλλου ἀκούοντα ἔμοιγε ἀεὶ πάντων ἥδιστον.

ΕΧ. Ἀλλὰ μήν, ὦ Φαίδων, καὶ τοὺς ἀκουσομένους γε τοιούτους ἑτέρους ἔχεις· ἀλλὰ πειρῶ ὡς ἂν δύνῃ ἀκριβέστατα διελθεῖν πάντα.

ΦΑΙΔ. Καὶ μὴν ἔγωγε θαυμαστόν τι ἔπαθον παραγενόμενος. οὔτε γὰρ ὡς θανάτῳ παρόντα με ἀνδρὸς ἐπιτηδείου ἔλεος εἰσῄει· εὐδαίμων γάρ μοι ἀνὴρ ἐφαίνετο, ὦ Ἐχέκρατες, καὶ τοῦ τρόπου καὶ τῶν λόγων, ὡς ἀσφαλῶς καὶ γενναίως ἐτελεύτα, ὥστε μοι ἐκεῖνον παρίστασθαι μηδ' εἰς Ἅιδου ἰόντα ἄνευ θείας μοίρας ἰέναι, ἀλλὰ κἀκεῖσε ἀφικόμενον εὖ πράξειν, εἴπερ τις πώποτε καὶ ἄλλος. διὰ δὴ ταῦτα οὐδὲν πάνυ μοι ἐλεεινὸν εἰσῄει, ὡς εἰκὸς ἂν δόξειεν εἶναι παρόντι πένθει· οὔτε αὖ ἡδονὴ ὡς ἐν φιλοσοφίᾳ ἡμῶν ὄντων, ὥσπερ εἰώθειμεν· καὶ γὰρ οἱ λόγοι τοιοῦτοί τινες ἦσαν· ἀλλ' ἀτεχνῶς ἄτοπόν τί μοι πάθος παρῆν καί τις ἀήθης κρᾶσις ἀπό τε τῆς ἡδονῆς συγκεκραμένη ὁμοῦ καὶ ἀπὸ τῆς λύπης, ἐνθυμουμένῳ ὅτι αὐτίκα ἐκεῖνος ἔμελλε τελευτᾶν. καὶ πάντες οἱ παρόντες σχεδόν τι οὕτω διεκείμεθα, ὁτὲ μὲν γελῶντες, ἐνίοτε δὲ δακρύοντες, εἷς δὲ ἡμῶν καὶ διαφερόντως, Ἀπολλόδωρος· οἶσθα γάρ που τὸν ἄνδρα καὶ τὸν τρόπον αὐτοῦ.

RHETORIC AND ENGLISH LITERATURE.

FIRST PAPER.

Monday, 29*th March* 1897.—9 *to* 11 *o'clock.*

1. Write an Essay on *one* of the following subjects:—

(*a*) Cordelia.

(*b*) The place of Thomson in the History of Poetic Style.

(*c*) "It is the business of the speculative philosopher to mark the proper ends of Government."—BURKE.

2. *Either* (*a*) distinguish, according to Morris, the dialects prevailing previous to the Conquest, and note their characteristic differences; *or* (*b*) Trace the history of English Prosody up to the time of the Canterbury Tales.

3. Give some account of the widening of the term, Rhetoric, since classical times, and note writers influential in distinguishing or affecting its connotation.

4. Describe the work of Alfred as a writer, and note his relations to preceding and succeeding authors.

5. *Either* (*a*) give some account of the chief prose writers of the Seventeenth Century, noting special features of style, and of their influence upon the development of prose; *or* (*b*) write an appreciation of the Lyric Poets from Jonson to Dryden. Illustrate by frequent quotation.

6. Give some account of the Scottish Chaucerians; *or* of "the tribe of Ben."

SECOND PAPER.

MONDAY, *29th March* 1897.—11.30 *to* 1.30 *o'clock*.

1. Give some account of the sources whence Shakespeare drew his materials for *King Lear*.

2. In the Knight's Tale, which of Chaucer's powers predominate and which are restrained? Illustrate by frequent quotation.

Or,

Distinguish in the Knight's Tale Chaucer the translator and Chaucer the creator.

3. What was the occasion of the writing of *Comus*? Select from the poem passages that seem to you more essentially Miltonic, both as to form and thought.

4. Trace the development of Bacon's style from the earlier to the later essays.

5. Write a short argument of the *Essay of Dramatic Poesy*, and give in brief the appreciations it contains.

6. Trace the influence of earlier poets in Thomson's *Winter*.

Or,

What is the "note" of Burke's style? Illustrate from the *Present Discontents*.

7. Select from *Adonais* what passages or phrases seem to you to be of supreme excellence.

8. Annotate *locis* of the following: hoppesteres, Citheroun, algates, avale, Hudibras, Albanact, Aleluid, achates, "like a parish-top," "like to the old Vice," Brownist, "the new map with the augmentation of the Indies," renege, "he called it Haemony," "by dead Parthenope's dear tomb," the primum mobile. "I mean Sandys his translation," "poor Monimia mourns," "a John Doe or Richard Roe," Double Cabinet, "and near me on the grass lies Glanvil's book," "the Lityerses-song."

"The Tristram who in better days
Was Lancelot's guest at Joyous Gard."

FRENCH.

FIRST PAPER.

SATURDAY, *3rd April* 1897.—11.30 *to* 1.30 *o'clock*.

1. Translate:—

(*a*) La conscience humaine est morte : dans l'orgie,
Sur elle il s'accroupit ; ce cadavre lui plaît ;
Par moments, gai, vainqueur, la prunelle rougie,
Il se retourne et donne à la morte un soufflet.

La prostitution du juge est la ressource.
Les prêtres font frémir l'honnête homme éperdu ;

Dans le champ du potier ils déterrent la bourse,
Sibour revend le Dieu que Judas a vendu.

Ils disent :—César règne, et le Dieu des armées
L'a fait son élu. Peuple, obéis ! tu le dois.—
Pendant qu'ils vont chantant, tenant leur mains fermées,
On voit le sequin d'or qui passe entre leurs doigts.

(*b*) Oh ! tandis que là-bas, hélas ! chez ces barbares,
S'étale l'échafaud de tes membres chargé,
Que le bourreau, rangeant ses glaives et ses barres,
Frotte au gibet son ongle où ton sang s'est figé ;

Ciel ! tandis que les chiens dans ce sang viennent boire,
Et que la mouche horrible, essaim au vol joyeux,
Comme dans une ruche entre en ta bouche noire
Et bourdonne au soleil dans les trous de tes yeux ;

Tandis qu'échevelée, et sans voix, sans paupières,
Ta tête blême est là sur un infâme pieu,
Livrée aux vils affronts, meurtrie à coups de pierres,
Ici, derrière toi, martyr, on vend ton Dieu !

(*c*) Alors ont éclaté ces sanglots qui ont retenti dans tous les cœurs. Quoi ! si jeune et déjà si las ! Tant de dons précieux, un esprit si fin, un tact si délicat, une fantaisie si mobile et si riche, une gloire si précoce, un si soudain épanouissement de beauté et de génie, et, au même instant, les angoisses, le dégoût, les larmes et les cris ! Quel mélange ! Du même geste, il adore et il maudit. L'éternelle illusion, l'invincible expérience sont en lui côte à côte, pour se combattre et le déchirer. Il est devenu vieillard, et il est demeuré jeune homme ; il est poète, et il est sceptique. La Muse et sa beauté pacifique, la Nature et sa fraîcheur immortelle, l'Amour et son bienheureux sourire, tout l'essaim de visions divines passe à peine devant ses yeux, qu'on voit accourir, parmi les malédictions et les sarcasmes, tous les spectres de la débauche et de la mort. Comme un homme, au

milieu d'une fête, qui boit dans une coupe ciselée, debout à la première place, parmi les applaudissements et les fanfares, les yeux riants, la joie au fond du cœur, échauffé et vivifié par le vin généreux qui descend dans sa poitrine, et que subitement on voit pâlir; il y avait du poison au fond de la coupe; il tombe et râle; ses pieds convulsifs battent les tapis de soie, et tous les convives effarés regardent. Voilà ce que nous avons senti, le jour où le plus aimé, le plus brillant d'entre nous, a tout d'un coup palpité d'une atteinte invisible, et s'est abattu avec un hoquet funèbre parmi les splendeurs et les gaietés menteuses de notre banquet.

Comment on the style of Victor Hugo and Taine as illustrated in these passages.

2. (*a*) Narrate briefly the events of the night of the 4th August 1789, and explain their consequences.

Or,

(*b*) In what sense were Voltaire, Montesquieu, and Rousseau precursors of the French Revolution?

3. (*a*) Explain Rousseau's system of education.

Or,

(*b*) Indicate the general differences between 17th and 18th century French literature.

4. (*a*) Quelles sont les lois générales des changements phonétiques du Latin en Français.

Or,

(*b*) Contrast the evolution of the English and French vocabularies.

Answer either in English or French, but additional marks will be given for good French style.

SECOND PAPER.

SATURDAY, *3rd April* 1897.—3 *to* 5 *o'clock*

I. Translate :—

O mémoire, qui joins à l'heure
La chaîne des temps révolus,
Je t'admire, étrange demeure
Des formes qui n'existe plus !

En vain tombèrent les grands hommes
Aux fronts pensifs ou belliqueux :
Ils se lèvent quand tu les nommes,
Et nous conversons avec eux ;

Et si tu permets ce colloque
Avec les plus altiers esprits,
Tu permets aussi qu'on évoque
Les cœurs humbles qu'on a chéris.

Le présent n'est qu'un feu de joie
Qui s'écroule à peine amassé,
Mais tu peux faire qu'il flamboie
Des mille fêtes du passé ;
Le présent n'est qu'un cri d'angoisse
Qui s'éteint à peine poussé,
Mais tu peux faire qu'il s'accroisse
De tous les sanglots du passé ;

L'être des morts n'est plus visible,
Mais tu donnes au trépassé
Une vie incompréhensible,
Présent que tu fais d'un passé !

Quelle existence ai-je rendue
A mon père en me souvenant ?
Quelle est donc en moi l'étendue
Où s'agite ce revenant ?

Un sort différent nous sépare :
Comment peux-tu nous réunir,
A travers le mur qui nous barre
Le passé comme l'avenir ?
Qui des deux force la barrière ?
Me rejoint-il, ou vais-je à lui ?
Je ne peux pas vivre en arrière,
Il ne peut revivre aujourd'hui !

II. Translate into French :—

The English, in fact, are strongly gifted with the rural feeling. They possess a quick sensibility to the beauties of nature, and a keen relish for the pleasures and enjoyments of the country. This passion seems inherent in them. Even the inhabitants of cities, born and brought up among brick walls and bustling streets, enter with facility into rural habits, and evince a turn for rural occupation. The merchant has his snug retreat in the vicinity of the metropolis, where he often displays as much pride and zeal in the cultivation of his flower-garden, and the maturing of his fruits, as he does in the conduct of his business and the success of his commercial enterprises. Even those less fortunate individuals, who are doomed to pass their lives in the midst of din and traffic, contrive to have something that shall remind them of the green aspect of nature. In the most dark and dingy quarters of the city, the drawing-room window resembles frequently a bank of flowers; every spot capable of vegetation has its grass-plot and flower-bed; and every square its mimic park, laid out with picturesque taste and gleaming with refreshing verdure.

GERMAN.—FIRST PAPER.

MONDAY, *5th April* 1897.—9 *to* 11 *o'clock.*

1. Translate :—

(*a*) Der ausgeſprochene Gegenſatz nord- und ſüddeutſcher Stammes-

art hat weit zurückliegende Voraussetzungen. Im letzten Grunde geht er zurück auf die hier früher, dort erheblich später, hier unmittelbar, dort nur mittelbar erfolgte Berührung mit der Kultur der Römerwelt. Während das fränkische Volk seinen Anteil an dieser Kultur mit einem erschreckenden sittlichen Verfall, einem Verlust seiner staatenbildenden Kraft und dem zersetzenden Widerstreit politischer Leidenschaften, eigensüchtiger Stammes- und Standesinteressen erkauft, den Sinn der sichern Größenschätzung, den Instinkt für das wirklich Erreichbare, die klare politische Fruchtbarkeit darüber eingebüßt hatte, während das Rheinland, dieses eigentliche Vorland der Civilisation, der ganze Westen und Süden den Einflüssen des Romanismus wehrlos offen stand, war das nördliche Deutschland in seiner schollentreuen Seßhaftigkeit und durch keinerlei einschneidende Teilungen gesprengten Geschlossenheit aus der gesunden Bahn eigenständiger Entwicklung nie herausgedrängt worden; weder sein politisches noch sein sittliches Leben hatte ähnliche Krisen durchzumachen, und die besonnen abwägende Klarheit, der sichere Blick für das Wirkliche und Notwendige, der unbeirrbare Scharfsinn und die zähe Energie des Wollens blieben darum sein glückliches Erbteil. Nicht nur das Christentum setzte sich hier am spätesten und als Träger der gehaßten, gewaltthätig auferlegten Fremdkultur unter furchtbaren Erschütterungen durch, auch alle romanischen Rezeptionen des Mittelalters traten hier, in größerer räumlicher Ferne, beträchtlich später und je nördlicher, um so abgeschwächter in Wirksamkeit, als im Süden und Westen: sie waren schon durch das fränkische Mittel hindurchgegangen, und ihre Aneignung vollzog sich so um viele Grade leidenschaftsloser und ohne die Gefahr, die Sicherheit der eigenen Natur daran zu verlieren.—BERGER.

(*b*) O Meer!
Mutter der Schönheit, der Schaumentstiegenen,
Großmutter der Liebe! schone meiner!
Schon flattert, leichenwitternd,
Die weiße, gespenstische Möwe,

Und wetzt an dem Mastbaum den Schnabel,
Und lechzt voll Fraßbegier nach dem Herzen,
Das vom Ruhm deiner Tochter ertönt,
Und das dein Enkel, der kleine Schalk,
Zum Spielzeug erwählt.

Vergebens mein Bitten und Flehn!
Mein Rufen verhallt im tosenden Sturm,
Im Schlachtlärm der Winde.
Es braust und pfeift und prasselt und heult,
Wie ein Tollhaus von Tönen!
Und zwischendurch hör' ich vernehmbar
Lockende Harfenlaute,
Sehnsuchtwilden Gesang,
Seelenschmelzend und seelenzerreißend,
Und ich erkenne die Stimme.

Point out some characteristic strokes of Heine's genius in the above passage.

(*c*) Sagt, wo sind die Vortrefflichen hin, wo sind' ich die Sänger,
Die mit dem lebenden Wort horchende Völker entzückt,
Die vom Himmel den Gott, zum Himmel den Menschen gesungen
Und getragen den Geist hoch auf den Flügeln des Lieds?
Ach, noch leben die Sänger; nur fehlen die Thaten, die Lyra
Freudig zu wecken, es fehlt, ach! ein empfangendes Ohr.
Glückliche Dichter der glücklichen Welt! Von Munde zu Munde
Flog, von Geschlecht zu Geschlecht euer empfundenes Wort.
Wie man die Götter empfängt, so begrüßte Jeder mit Andacht,
Was der Genius ihm, redend und bildend, erschuf.
An der Gluth des Gesangs entflammten des Hörers Gefühle,
An des Hörers Gefühl nährte der Sänger die Gluth —
Nährt' und reinigte sie, der Glückliche! dem in des Volkes
Stimme noch hell zurück tönte die Seele des Lieds,
Dem noch von außen erschien, im Leben, die himmlische Gottheit,
Die der Neuere kaum, kaum noch im Herzen vernimmt.

SCHILLER.

2. Translate into modern German, adding a few philological notes:—

(*a*) Dô si entslâfen wâren und er daz ervant,
dô nam der degen widere den schilt an die hant,
und gie ûz dem gademe für den turn stân,
und huote der ellenden vor den Kriemhilde man.
Des nahtes wol enmitten. ine weiz iz ê geschach,
daz Volkêr der küene einen helm schinen sach
verre ûz einer vinster. die Kriemhilde man
wolden an den gesten schaden gerne hân getân.
Dô sprach der videlære „friunt her Hagene,
uns zimet disiu sorge ensamt ze tragene.
ich sihe gewâfent liute vor dem hûse stên:
als ich mich versinne, ich wæn si wellent uns bestên."
„Sô swiget", sprach dô Hagene, „lât se uns her nâher baz
ê si unser werden innen, sô wirt hie helmevaz
verrucket mit den swerten von unser zweier hant.
si werdent Kriemhilde hin wider übele gesant."

(*b*) O pfening, man dut dir die ere;
Du ſchaffſt, daſz vil dir günſtig ſint.
Wer pfening hat, der hat vil fründ,
Den grüſzt vnd ſwagert yedermann.
Wolt eyner gern eyn ee frow han,
Die erſt frag iſt: „was hat er doch?"
Man fragt der erberkeyt nym noch
Oder der wiſzheit, ler, vernunfft;
Man ſucht eyn vſz der narren zunfft,
Der ynn die mylch zu brocken hab,
Ob er joch ſy eyn köppels knab.
All kunſt, ere, wiſzheit iſt vmb ſunſt
Wo an dem pfening iſt gebruſt.
Wer ſyn or vor dem armen ſtopfft
Den hört got nit, ſo er ouch klopft.

3. Translate, idiomatically :—

Das werde ich ihm ſchon anſtreichen.
Er läßt fünfe gerade ſein.
Es war nichts mehr aufzutreiben.
Das kann ich ihm nicht verargen.
Er hat ſich mit ihr überworfen.
Was haben ſie ſich denn da wieder einmal aufbinden laſſen.
Das will ich einſtweilen dahingeſtellt ſein laſſen.
Es ſoll mir nicht darauf ankommen.
Er ſieht ihm durch die Finger.
Das ſchlägt in mein Fach.
Damit hat es nichts auf ſich.
Er muß ſich nach der Decke ſtrecken.

4. Answer any *two* of the following :—

(1) Which are the points of contrast between Klopstock and Wieland?

(2) Give some account of the principal contributions of German 18th century criticism to the theory of art and literature.

(3) Which are the characteristic features of the German Volkslied, and what part did it play in the revival of German literature?

(4) Show the influence of Herder on young Goethe.

(5) How does Schiller's practice in *Maria Stuart* agree with his theory as to the relation of the Drama to History?

5. Answer *one* of the following :—

(Answers may be in German, and additional marks will be given for fair German style.)

(1) In wie weit giebt Gutzkow „in Zopf und Schwert" ein treues Bild der Zuſtände in Preußen unter Friedrich Wilhelm dem Erſten.

(2) Welche Ereigniſſe haben im Laufe des 19ten Jahrhunderts zur Einigung Deutſchlands geführt?

(3) Welche Eigenſchaften des deutſchen Charakters zeigen ſich in der deutſchen Geſchichte?

SECOND PAPER.

MONDAY, *5th April* 1897.—11.30 *to* 1.30 *o'clock.*

I. Translate into German:—

(*a*) I'll tell you a story, gentlemen, which is as true as that this pipe is made of clay. When I was delivered of my first book, I owed my tailor for a suit of clothes; but that is nothing new, you know, and may be any man's case as well as mine. Well, owing him for a suit of clothes, and hearing that my book took very well, he sent for his money, and insisted upon being paid immediately. Though I was at the time rich in fame, for my book ran like wild-fire, yet I was very short in money, and being unable to satisfy his demand, prudently resolved to keep my chamber, preferring a prison of my own choosing at home, to one of my tailor's choosing abroad. In vain the bailiffs used all their arts to decoy me from my citadel; in vain they sent to let me know that a gentleman wanted to speak with me at the next tavern; in vain they came with an urgent message from my aunt in the country; in vain I was told that a particular friend was at the point of death, and desired to take his last farewell. I was deaf, insensible, rock, adamant; the bailiffs could make no impression on my hard heart, for I effectively kept my liberty by never stirring out of my room.—GOLDSMITH.

(*b*) The banished Cavaliers felt an emotion of national pride when they saw a brigade of their countrymen, outnumbered by foes and abandoned by allies, drive before it in headlong rout the finest infantry of Spain, and force a passage into a counterscarp which had just been pronounced impregnable by the ablest of the marshals of France.—MACAULAY.

(*c*) We asked him was he married? and he said, No, but

he was *as good as married*; for he had an old mother and four little brothers to keep, and six mouths to feed, and to dress himself decent to drive the gentlemen. Was not the "as good as married" a pretty expression? and might not some of what are called their betters learn a little good from these simple poor creatures? There's many a young fellow who sets up in the world would think it rather hard to have four brothers to support: and I have heard more than one genteel Christian pining over five hundred a year. A few such may read this, perhaps: let them think of the Irish widow with the four children and *nothing*, and at least be more contented with their port and sherry and their leg of mutton.—THACKERAY.

II. Translate into idiomatic German:—

(1) I shall get it for you.
(2) This letter is to be delivered into his own hands
(3) He will never set the Thames on fire.
(4) Charity begins at home.
(5) You don't mean to say so!
(6) They got to words.
(7) I waive this privilege.
(8) It came off very well.
(9) That is just like him.
(10) He took to his heels.
(11) My hair stood on end.
(12) It comes to the same thing.

III. Answer *two* of the following:—

(1) Comment on the peculiar formation of the following words:—hausbacken, Bürgermeiſter, Biedermann, ſelbander, meinesgleichen, allenthalben, Liebesfeier, Ihro Gnaden, Weichbild, Elend, Herold, Seneſchall.

(2) How do you account for the difference of vowels or consonants in the following words: faſt—feſt, leſen—lehren, ward—wurde, nehme—nimmſt, Rauchwerk—rauh, Wert—Würde,

Trank—Trunk, darben—dürfen, Name—nennen, Tod—*death*, *tooth*—Zahn, Schwieger-Schwäher.

(3) Show by examples how certain chapters of the history of German civilisation may be illustrated by the vocabulary of the language.

(4) Mention ten anomalous forms in Modern German which may be accounted for by a reference to Middle High German.

ESSAY.

MONDAY, *5th April* 1897.—3 *to* 4 P.M.

Write a short essay in German on any of the following subjects:—

a. Goethe at Leipzig.

b. Der britische Nationalcharacter.

c. Die Berechtigung der Frauen zum Universitätsstudium.

HEBREW.

FIRST PAPER.

WEDNESDAY, *24th March* 1897.—2.30 *to* 4.30 P.M.

1. For Hebrew Prose:—

After the widow had saddled her ass and gone for three days towards the sea, she came to an oak-tree: and, kneeling down, she prayed with great fervency aloud. Not far away there was an old man ploughing with three yoke of oxen: and he heard the widow's voice, and pitied her. So he left off his work, and asked her whom she was seeking, and why she prayed so earnestly. "My two sons," she answered, "went to ascend that mountain, where the altar is that the lying priests and prophets have broken down, and they have not come back to me. Now, I do not know what to do, for they sustained me, and I have no one any longer to give me meat and drink. I am much

afraid that a lion has killed them, or perhaps God has been angry with them for touching His holy altar, and has sent fire from heaven." Then the widow wept, but the old man bade her come home with him and refresh herself beside his wife. So she was comforted, and blessed the man for his kindness.

TRANSLATION.

2. Translate :-
   (*a*) MICAH ii. 7-13.
   (*b*) Give various interpretations of verse 8.
3. Answer any *one* of the following :—
   (1) Write a short note on the leading characteristics of Micah's style, and remark on the observation that the book reads like a collection of extracts.
   (2) "All critics are practically agreed as to the presence of interpolations in the text of Micah." Discuss this point with special reference to the last two verses of the passage above (No. 2 *a*).

SECOND PAPER.

FRIDAY, 26*th March* 1897.—9 *to* 11 A.M.

1. (*a*) Translate DEUTERONOMY iv. 1-5.
   (*b*) Write a short explanatory note on verse 3.
2. (*a*) Translate DEUTERONOMY xvi. 1-4.
   (*b*) Give the meaning of *Abib*, also its later Hebrew name. Parse the first word of verse 1. Give the Hebrew names of the other two great annual festivals.
3. Translate :—
   (*a*) 1 KINGS xiii. 1-4.
   (*b*) 2 KINGS x. 15-19.
4. (*a*) Translate PSALM liii. 2-7.
   (*b*) Of what Psalm is this a duplicate? Indicate the chief variations.

(*c*) Parse חנך (v. 5) How did the LXX. (ἀνθρωπαρέσκων) read the word?

5. Answer any *one* of the following:—

(1) Write a brief Essay on the characteristics of Hebrew Poetry, illustrating it by examples in English from Psalms xlii. to lxii.

(2) A number of the Psalms in the section are ascribed in their titles to David. How far can reliance be placed on this ascription?

JEWISH HISTORY.

6. Answer any *two* of the following:—

(1) "As the rise of the House of Jehu had been ushered in by prophetic voices, so was its doom."
Discuss this statement at some length.

(2) Give the date of the Fall of Samaria, and narrate the circumstances that led to it.

(3) Describe the relations of Israel and Moab between the reign of Ahab and that of Jeroboam II. inclusive; and state in what manner a modern discovery has illustrated these relations.

II.—MENTAL PHILOSOPHY.

LOGIC AND PSYCHOLOGY.

FIRST PAPER.

MONDAY, *29th March* 1897.—3 *to* 5 *o'clock.*

1. Explain the nature of Immediate Inference, and show that it has only two fundamental forms. Draw all immediate inferences possible from the proposition:—"Not every man is a hero."

2. Prove as concisely as possible:—(1) that a syllogism of the First Figure must have an affirmative minor, and a universal

major premiss; (2) that a Sorites can have only one particular premiss and that the first.

3. State in logical form, and examine:—

(*a*) The love of nature is never found either in the stupid or in the immoral man, therefore stupidity and virtue are incompatible.

(*b*) None but the wise are good, and none but the good are happy, therefore none but the wise are happy.

(*c*) To fear death is folly, for so long as we are it is not, and when it is, we no longer are.

4. What is meant by the distinction between narrative judgments, and the universal judgments of science? Explain the importance of the distinction, and mention the chief varieties of the former class.

5. Describe the Joint Method of Agreement and Difference; show how it is related to the Postulates of Induction.

6. What are the requisites of scientific explanation, and by what method are they best fulfilled?

7. Define and distinguish "organic sensations," "subjective sensations," "after-images," "illusions," "hallucinations." Give examples.

SECOND PAPER.

TUESDAY, 30*th March* 1897.—3 *to* 5 *o'clock.*

1. Distinguish carefully Voluntary from Involuntary Attention, and indicate the function of each in the development of mental life.

2. State the chief accounts which have been given of the origin of the perception of space, and estimate their respective values.

3. "The revival of an image is not in itself a memory." Explain why it is not, and give a careful statement of the facts essentially involved in Memory.

4. State briefly the leading thoughts of Parmenides and

Heraclitus, and indicate how they influenced the further course of Greek speculation.

5. Explain the following:—

(*a*) Thinking is "not the essence of the soul, but one of its operations."

(*b*) "There be other simple ideas which convey themselves into the mind by all the ways of sensation and reflection."

(*c*) "The ideas of pimary qualities are resemblances of them."

(*d*) "An obscure and relative idea of substance in general."

6. How far is Berkeley's system correctly described as Subjective Idealism? Discuss his account of the permanence and independence of the material world.

7. Give Hume's account of the principles of connexion or association between ideas. How are these employed by him in explanation of Belief?

MORAL PHILOSOPHY.

FIRST PAPER.

THURSDAY, 1*st April* 1897.—11.30 *to* 1.30 *o'clock.*

1. Carefully distinguish Moral Philosophy, with regard to subject-matter and method, from Psychology and from Politics.

2. Consider how far (*a*) Knowledge, (*b*) Habit, are conditions of Morality.

3. Explain the significance of the following terms, in ethical philosophy;—Want, Desire, Motive, Sentiment, Judgment, Volition.

4. Examine the theory that first principles in morals are acquired from experience.

5. "An erring conscience is a chimaera." Discuss this statement by reference to your view of the nature and function of Conscience.

6. Consider the contrasting views as to the relation of goodness to pleasure;—(*a*) that *all* actions are good in so far as they

tend to produce pleasure, and (*b*) that *no* action is good, on the ground of the pleasure consequent.

7. Explain the moral significance of Industry, and its bearing on Property as an institution.

SECOND PAPER.

THURSDAY, 1*st April* 1897.—3 *to* 5 *o'clock.*

1. Sketch briefly the development of ethical theory in the doctrines of Socrates and Plato.

2. Outline Aristotle's view of the Chief Good; compare and contrast with that of the Stoics.

3. Explain Butler's interpretation of (*a*) the true conception of human nature, (*b*) the place and function of *prudence* in human life, (*c*) the criterion of the rightness of human actions.

4. "The sanction (of the utilitarian standard) is the same as of all other moral standards—the conscientious feelings of mankind." Explain the reference of this statement of Mill, and criticise.

5. State any points of difference between J. S. Mill's and earlier Hedonistic theories.

6. What are the outstanding features of the Moral Sense Theory in English Ethics? Against what doctrines were the arguments of its supporters mainly directed?

7. Write brief notes on the ethical teaching of any *one* of the following writers:—Kant, Hegel, Schopenhauer.

POLITICAL ECONOMY.

FIRST PAPER.

WEDNESDAY, 17*th March* 1897.—9 *to* 11 *o'clock.*

[*Answer* EIGHT *questions only.*]

1. Give the definitions of the three great species of Capital. What is the root-idea common to all?

Examine Mill's proposition that industry is limited of Capital, and indicate the fallacies against which it is directed.

2. Explain the terms utility; total and marginal utility. Show how these conceptions are connected with (1) the theory of the advantages of Exchange and (2) the Law of Demand. Illustrate your answer of curves.

3. Give a definition of *Labour* as used in Economics, and distinguish carefully between Labour from the *subjective* and *objective* points of view.

4. Examine the claim that private property in agricultural land should not be allowed because it gives rise to Monopoly. What are the economic advantages of the landlord and tenant system in agriculture? Do the same arguments apply to property in land not used for agricultural purposes?

5. Explain the theory of *Economic Rent.*

Can Economic Rent arise under the supposition that all the land is of the same quality and equally advantageously situated?

6. Under what conditions can Trade Unions raise wages in a particular locality at the expense of the Consumer or of Profits?

7. What are the principal causes affecting the accumulation of Capital?

8. Compare and contrast the Laws of *Increasing* and *Diminishing* Return.

9. What are the causes of the tendency to production on a large scale in manufactures?

Examine the assertion that this tendency will eventually pave the way to the assumption of all industries by the State.

10. Discuss the effects on Wages of the introduction of Machinery.

11. Explain the meaning and limitations of the *Tendency of Profits to Equality.*

SECOND PAPER.

WEDNESDAY, 17*th March* 1897.—11.30 *to* 1.30 *o'clock.*

[*Answer* EIGHT *questions only.*]

1. Explain, with illustrations, the proposition that "*Value is a Relative Term.*"

2. Explain what is meant by a *Rise in Demand*, and examine the immediate and ulterior effects of such a rise upon price.

3. What are the primary functions of Money? How does the present English monetary system fulfil these functions?

4. Explain Gresham's Law. Why would Bi-metallism in any one country probably break down, and on what grounds is it asserted that International Bi-metallism would be free from this objection?

5. On what grounds are the issues of Bank Notes generally placed under peculiar restrictions whilst the management of Banking Reserves is comparatively free?

6. Show theoretically how *Comparative Cost* determines the course of Foreign Trade.

7. State the general arguments, positive and negative, in favour of Free Trade.

8. Show how Adam Smith's views on the relative advantages of different modes of the employment of capital affected his treatment of Foreign Trade.

9. Give a brief summary of the expedients adopted in the Mercantile System to ensure a favourable balance of trade.

10. Explain the term *Incidence of Taxation*, and indicate a system of *Classification of Taxes.*

11. State the general grounds on which Mill supports the system of *Laisser-faire*, and notice briefly some of his principal exceptions.

EDUCATION AND SCHOOLMASTER'S DIPLOMA

FIRST PAPER.

FRIDAY, 26*th March* 1897.—9 *to* 11 A.M.

1. Justify the derivation of the Methodology of Education from the Philosophy of Intelligence.

2. Trace the unfolding of Intellectual Power from Sense-Conception to the formation of General Concepts, and apply the practical lessons learned therefrom to the teaching of Grammar.

3. As Mind-Activity is physiologically conditioned, indicate the practical lessons to be inferred by the Educator from its laws.

4. Classify according to principle the Materials of Education, and discuss fully the value and place of Grammar and Drawing.

5. The value of Science Teaching in Schools is in proportion to its being made a Training in the Method of Science. Justify this contention, and consider it as affecting your teaching of Botany.

6. Exhibit the dependence, on their psychological bases, of four of the more important Principles of Method.

7. Justify psychologically the distinction between Moral Instruction and Moral Discipline.

8. Discuss the authority of the Educator with respect to its justification, limitations, and purpose.

9. Apply the Rules of Method to:—

(*a*) The teaching of History; *or*,

(*b*) The teaching of Analysis of Sentences; *or*,

(*c*) Any Object Lesson in Animal Knowledge.

SECOND PAPER.

FRIDAY, 26*th March* 1897.—11.30 *to* 1.30 *o'clock*.

1. "Visualisation in all things is the watchword of the Comenian method." Explain this statement, and illustrate your answer from the principles of the Great Didactic.

2. State and criticise the answer given by Comenius to the question, *How can one teacher suffice for any number of pupils whatsoever?*

Or,

Characterise fully his idea of the Vernacular School.

3. Describe the various ways in which Locke, in the *Thoughts*, would encourage a "busy inquisitiveness" in children. What is meant by "sauntering," and how does Locke propose to cure it?

4. Explain and criticise Locke's methods of dealing with:—(*a*) importunity, (*b*) obstinacy, (*c*) lying, in children.

5. What advice has Locke to give, in the *Conduct*, on the reading of books so as to increase the powers and activity of the mind? What is the "true key of books"?

6. Give the substance of his remarks on the need of open-mindedness in the searcher for truth: the value of the study of mathematics: and the use and abuse of similes and metaphors.

7. State and criticise the main positions laid down by Ratke.

Or,

Examine the proposals of Rousseau for the instruction of Émile when he has reached the age of twelve.

8. How would you proceed in teaching the elements of the French Language?

SCHOOLMASTER'S DIPLOMA ONLY.

THIRD OR ADDITIONAL PAPER.

SATURDAY, 27*th March* 1897.—10 *to* 1 *o'clock.*

1. Describe the Hellenic ideal of human excellence, and show how far this ideal was interpreted and realised in the education of the Dorian Greeks.

2. Who were the Sophists, and what was their relation to the higher education of Greece, from the 5th Century B.C. on-

wards? Give some account of the educational aims of Isocrates, and compare them with those of Quintilian.

3. Describe the course of instruction through which a young Roman of the time of Cicero was carried, up to his sixteenth year. Give as many particulars as you can.

4. State and criticise Quintilian's views on :—(1) The respective merits of public and private education; (2) emulation and corporal punishment; (3) the attitude of the master towards his pupils; and compare them, briefly, with the views of Locke.

5. Give the substance of Quintilian's teaching as to the training of boys in Composition. What are his objections to a "dry master" (*magister aridus*)?

6. Describe the essential principles of Pestalozzi's system, and estimate the influence which he has exerted upon the general theory and practice of education.

Or,

Give, with some fulness, Quick's criticism of Herbert Spencer's first chapter, entitled, *What Knowledge is of Most Worth*; and consider the value of his criticism.

7. How does Milton, in the *Tractate*, define "a complete and generous education"? Give an outline of his scheme under the head of *Studies*; and criticise the statement that this scheme is vitiated by "the information fallacy."

8. With what ends in view would you ask children to commit to memory select passages of poetry? Take any poem you know well, and show how you would use it in order to secure these ends.

Or,

Point out the value of utilising Geography in the teaching of History, pointing out the relation of Physical Geography to History. Illustrate your answer as fully as you can.

A Thesis on either—

(*a*) Relative Value of Studies in the School; *Or*,

(*b*) The possible equipment in respect of acquired knowledge of a boy of twelve years of age, who has gone through a complete Primary School Course, beginning in the Infant School at the age of 5.

PHILOSOPHY OF LAW.

See Papers under Faculty of Law.

III.—SCIENCE.

MATHEMATICS.

FIRST PAPER.

WEDNESDAY, 31*st March* 1897.—3 *to* 5 P.M.

1. Prove that the angle subtended by any arc of a circle greater than a semi-circle at the circumference is half the angle subtended by the same arc at the centre.

APB and AQB are two segments on the same base, P and Q points on the two segments, and APQ a straight line. If QP is equal to QB, find the relation between the angles in the segments, and shew that for any other position of P and Q the triangle QPB remains isosceles.

2. Shew that the perpendicular dropped from the centre of a circle on a chord bisects the chord.

Shew that, if the four perpendicular bisectors of the sides of a quadrilateral are concurrent, the sum of two opposite angles of the quadrilateral is two right angles.

3. Define the power of a point with respect to a circle. Prove the fundamental property of the Radical Axis (Axis of Equipollence) of two circles.

Shew how to construct a circle having a given radius which cuts two given circles orthogonally.

4. If two plane rectilineal figures be similar and similarly situated, shew that the lines which join pairs of corresponding points are concurrent.

$ABCD$ is a parallelogram the lengths of whose sides are given. If the side AB be fixed in position, and O be any fixed point in the plane of the figure, find the locus of the centre of medians of the triangle OCD.

5. Prove that the internal bisector of the vertical angle of a triangle divides the base in the ratio of the sides.

In an acute-angled triangle ABC, in which AB is greater than AC, the median from A, the internal bisector of the angle A, and the perpendicular from A cut the base in D, E, F respectively. Shew that the points lie in the order $BDEFC$.

6. Shew that the areas of circles are to one another as the squares on their diameters.

With A as centre two circles are drawn to cut a given circle, centre B. The former cuts it at the ends of a diameter, the latter orthogonally, and their areas are P and Q respectively. Shew that $P+Q$ is to $P-Q$ in the duplicate ratio of AB to the radius of the given circle.

7. Shew that the volume of any tetrahedron is one-third of the volume of the prism of the same altitude on the same base.

Find the ratio of the area of the surface of a regular tetrahedron to the area of the surface of the circumscribed sphere.

8. Prove that the cross ratio of the points in which a straight line cuts a pencil of four rays is independent of the position of the line.

If the pencil is harmonic, and one of the points lies midway between two others, shew that the transversal is parallel to a ray of the pencil.

Or, as an alternative,

Prove that the inverse of a straight line is a circle; and that any two circles can be inverted into themselves.

9. If (x, y) be the co-ordinates of any point on an ellipse referred to a pair of conjugate diameters of lengths 2α, 2β as axes, shew that $x^2/\alpha^2+y^2/\beta^2=1$.

A series of ellipses are inscribed in a square. Shew that the locus of the middle point of the line joining the ends of the major and minor axes is a circle. State a corresponding theorem for a rectangle?

10. If F be the focus of a conic section, and G the point where the normal at P meets the major axis, shew that $FG=eFP$.

If M be the projection of P on the directrix and GM meet FP in Q, shew that the locus of Q is a conic, and find its focus, directrix, and eccentricity.

Or, as an alternative,

Shew that the subnormal of a parabola is constant.

Two equal parabolae meet at right angles at their vertices: find the angle of intersection at the other real point in which they intersect.

11. Shew that $\cos(2\pi+x)=\cos x$, and $\cos^2(\pi+x)=\cos^2 x$, and find the least period of $\cos^2 x$.

Find all values of θ for which $2\sin\theta+2\cos\theta+\tan\theta+1$ vanishes.

12. Assuming the addition theorem

$$\cos(A+B)=\cos A\cos B-\sin A\sin B,$$

shew that $\sin 2A$, $\cos 2A$, $\tan 2A$ can all be expressed as rational functions of $\tan A$.

Shew that

$$\frac{\cos 2\phi-\cos 2\theta}{\sin 2\theta+2\sin(\theta-\phi)-\sin 2\phi}=\tan\tfrac{1}{2}(\theta+\phi).$$

Also, that if $A+B+C=\pi$, then

$$\Sigma\cot A(\tan B+\tan C)=\sec A\sec B\sec C-2.$$

SECOND PAPER.

THURSDAY, 1*st April* 1897.—9 *to* 11 A.M.

1. Write down two homogeneous symmetric integral functions of x, y, z of which (1) x^3 (2) x^2y are terms.

If $x+y+z$ is one factor of the symmetric function $A\Sigma x^2+B\Sigma xy$, what is the other? If $x+y+z$ is a factor of $A\Sigma x^2+B\Sigma x^2y+Cxyz$, are the ratios $A:B:C$ determinate?

2. Prove that if the sum and product of two numbers are both real, the numbers are either conjugate complex numbers or both real.

Prove that if the sum and difference of two numbers are both real the numbers must both be real.

If ω be an imaginary cube root of 1, find the modulus of $1-\omega+\omega^2$.

3. Distinguish between an algebraic equation and an algebraic identity.

Shew that if an integral algebraic function of degree n vanishes for more than n values of the variable it must vanish identically.

Express x^2 in the form $Ax+Bx(x-1)+Cx(x-1)(x-2)$.

4. Shew how, if two of the roots of a given biquadratic equation are known, the remaining two may be found.

By the transformation $x=y-1$, or otherwise, solve the equation $2x^4+9x^3+14x^2+9x+2=0$.

5. Find the condition that the quadratic equation $Ax^2+Bx+C=0$ may have two equal roots: and explain generally how a similar condition may be found for an integral equation of any degree.

Find the condition that the straight line $lx+my+1=0$ may touch the conic $xy+x+y=0$.

6. Eliminate x from the equations $ax^2+bx+c=0$ and $a'x^2+b'x+c'=0$: and x and y from $ax+by+c=0$, $a'x+a'y+c'=0$, $a''x+b''y+c''=0$.

What meaning in each case, with reference to the system of equations, has the vanishing of the eliminant?

Solve the system

$$x^4+y^4+x^2y^2=133,\ x^2+y^2-xy=7.$$

7. Prove the Binomial Theorem for a positive integral index.

State the theorem for a fractional index, and indicate the steps by which it is proved.

Or, as an alternative,

Evaluate $\underset{n=+\infty}{L}\left(1+\frac{1}{n}\right)^n$; and prove that, if real values only are considered, $e^x.e^y=e^{x+y}$, where e^x denotes $1+x\,1!+x^2\,2!+\ldots$.

8. Explain what is meant by a series being summable to n terms, and state the necessary and sufficient condition for this.

Sum the following series each to n terms

$$1.2.5+2.3.7+3.4.9+4.5.11+\ldots.$$

$$\frac{1^2+1-1}{1.2}+\frac{2^2+2-1}{2.3}+\ldots\ldots+\frac{n^2+n-1}{n(n+1)}.$$

Or, as an alternative,

Find the equation to the normal at any point on the ellipse $x^2/a^2+y^2/b^2-1=0$.

The normal meets the major and minor axes in G and g respectively: find the equation to the locus of the middle point of Gg; and sketch the locus when $a=2b$.

9. Prove that $(\cos\theta+i\sin\theta)^n=\cos n\theta+i\sin n\theta$, n being a positive integer. Hence shew that $\cos\theta$, $\sin\theta$, $\cos n\theta$, and $\sin n\theta$ can all be expressed as rational functions of a certain variable.

Express $\sin^5\theta\cos^3\theta$ as a sum of sines of multiples of θ.

10. Prove, for any triangle, that

$$\sin A/a=\sin B/b=\sin C/c=1/2R=2\Delta/abc.$$

If the perpendiculars from the vertices of a triangle on the opposite sides meet the circum-circle in A', B', C', shew that the area of the triangle $A'B'C'$ is $8\cos A\cos B\cos C\Delta$.

Shew that in any triangle

$$\sin^2 2A=\sin^2 2B+2\sin^2 2C+2\sin 2B\sin 2C\cos 2A.$$

11. If p be the length of the perpendicular from the origin on a straight line L, and α the inclination of the perpendicular to the x-axis, shew that the algebraic value of the perpendicular

from the point (ξ, η) on L is $\xi\cos\alpha+\eta\sin\alpha-p$; and deduce a form of the equation to a straight line.

A and B are fixed points on the axis of x and y respectively, and P is a movable point such that the perpendicular from A on BP bears a fixed ratio to the perpendicular from B on AP; find the equation to the locus of P; and shew that the essential part of the locus is a circle.

12. Deduce the general equation to a conic section from the focal definition, and shew that when the conic is a parabola the terms of the second degree in the equation form a complete square.

Trace the curves represented by

(1) $(x^2+y^2)y=1$;

(2) $(x-1)^2y=(x-2)(x-3)$.

NATURAL PHILOSOPHY.

FIRST PAPER.

FRIDAY, *2nd April* 1897.—9 *to* 11 *o'clock.*

(*Not more than* EIGHT *Questions to be answered.*)

1. Define Inertia of matter, and point out how it has been proved that, *in vacuo* and in any one locality, the weights of bodies are strictly as their masses. Point out the reasons for the proviso in the above statement.

2. Define Acceleration of a point's velocity; and find its magnitude and direction in the case of any point on the circumference of a circle which rolls uniformly on a fixed straight line.

3. Define Force, and the Time-average of Force. Calculate this average when a ball whose mass is one-tenth of a pound acquires, in one ten-thousandth of a second, a speed of 250 feet per second:—and compare it with the weight of the ball.

4. A fly-wheel of cylindrical form, whose mass is 200 lbs. and

radius 2 feet, is set in motion by the descent of a mass of 25 lbs., the cord which supports it being wound round the axle of the wheel. Through what height has the mass fallen when the wheel revolves at the rate of twice per second?

5. What is the proper qualitative distinction between waves and ripples? Why do their speeds depend mainly upon their lengths (so long as their amplitudes are inconsiderable in comparison with these), and how do they so depend?

6. Define the Compressibility of a body, and show how it can be measured in the case of a liquid. How does temperature affect the compressibility of water?

7. What is meant by the Mean Density of the earth, and how could it be approximately found by comparing the weights of the same mass at the top and bottom of a pit shaft of known depth? Prove the fundamental principle on which this method depends.

8. State some of our reasons for believing that there is very great internal pressure in a liquid:—and that, in general, it diminishes with rise of temperature; and is increased when a solid is dissolved in the liquid.

9. State the fundamental assumptions of the Kinetic Theory of gases, and show that the theory gives satisfactory reasons for the Boyle-Charles Law.

10. Describe, generally, the objective nature of Sound, and show how its speed in any medium can be calculated from experimental data, characteristic of the medium. What are these data when the medium is (1) water, (2) air?

11. Characterize the various sounds which can be produced by means of an open organ-pipe or a post-horn; and explain how their relative and actual frequencies may be calculated.

12. Explain what is meant by the term Resonance. Give its dynamical explanation; and mention experimental illustrations of it in various branches of physics.

13. What effects are produced upon sound generally by wind, and on musical notes by relative motion of hearer and source; and how are they explained?

SECOND PAPER.

FRIDAY, *2nd April* 1897.—11.30 A.M. *to* 1.30 P.M.

Not more than EIGHT *questions are to be answered.*

1. Define the specific heat of a body. How would you determine it experimentally?

Wherein lay Irvine's error, who held the total heat in a body to be proportional to its specific heat and to the temperature measured from a certain fixed zero?

2. Explain why a jet of low pressure steam scalds, while a jet of high pressure steam may cause no discomfort.

3. How is heat shown to be measurable in quantity? How far is the scale of the ordinary thermometer arbitrary? How would you determine the corrections necessary to reduce such scale to an absolute thermometric scale with the same freezing and boiling points?

4. Describe the various consequences that may happen to light when it falls on a body.

Shew that the best absorber is also the best radiator.

5. Explain the production of a spectrum by a diffraction grating.

6. How was the polarization produced, in the light first observed to have that property?

Explain the construction of a Nicol's prism, and its polarising action.

7. How can a Halo be at once distinguished from a Rainbow, and from a Corona? Give reasons for your answer.

8. State the law of attraction for static electricity. Between two fixed insulated spheres a third, also insulated, is suspended.

What is the effect on the suspended sphere of charging one of the others? What would be the effect if the suspended sphere were connected to earth?

9. In what circumstances is magnetism induced in a body? How would you permanently magnetise a steel bar?

10. What was Oersted's discovery? Shew that it is in effect the same as that a steady current in a circuit is equivalent to a magnetic shell bounded by the circuit.

11. On what fact in electric induction does the dynamo depend? Explain how that fact is applied.

12. Explain the action of Lightning Rods. What is the object of connecting the lower end to a water pipe?

CHEMISTRY.

ZOOLOGY.

See Papers under Faculty of Medicine.

BOTANY.

MONDAY, 22*nd March* 1897.—1 *to* 3 *o'clock.*

Illustrate your Answers by Drawings.

1. Describe the sexual and assexual modes of reproduction in any three tpyes, representing the chief sub-classes of Algae.

2. Discuss the formation of Carbohydrates in a green plant, growing in soil. Wherein do the cell-contents of leaves differ just before and after daylight; and why?

3. Describe the sporophyte of Selaginella, and compare it briefly with that of Aspidium.

4. Compare, by drawings, the transverse section of the primary stem of a Dicotyledon with that of a Monocotyledon. Describe also how secondary growth takes place in an Oak and in a Dracaena.

5. Draw the typical flower diagram of Cruciferae. What explanations have been given of the flower structure?

GEOLOGY, INCLUDING MINERALOGY.

TUESDAY, 23*rd March* 1897.—1 *to* 3 *o'clock.*

1. Describe the geological work of ice in its various forms.

2. Describe and contrast atmospheric and marine denudation.

3. Give the characters of any six minerals which occur as essential constituents of eruptive rocks.

4. Give the petrographical characters of Fireclay, Marble, Greywacké, Gneiss, Anthracite, Clay-slate, and Quartzite.

5. Give the palæontological characters of the following genera:—Productus, Lepidodendron, Archæopteryx, Anan-chytes, and Calymene.

6. Draw a section to illustrate the following structures:—Isoclinal strata, Unconformity, Overlap, Dyke, Outlier.

IV.—HISTORY AND LAW.

BRITISH HISTORY.

FIRST PAPER.

SATURDAY, 27*th March* 1897.—12 *to* 2 *o'clock.*

N.B.—*Not more than* SEVEN *questions to be attempted. The questions should be selected from different parts of the Paper.*

1. Compare the political system of England in the time of Cnut with that in the time of Alfred..

2. Describe the sources of revenue possessed by the Norman Kings.

3. Show how Scotland became a united kingdom, and how it acquired its present boundaries.

4. Give an account of the aims and plans of Simon de Montfort.

5. "The defining genius of Edward I." Show how this phrase touches both the strength and the weakness of Edward I.

6. Mention the chief causes of the fall of Richard II.

7. Show how the weakness of Henry IV's title influenced his policy, and the events of his reign.

8. By what means did Edward IV endeavour to strengthen his power?

9. Show how the House of Douglas was a serious rival to the House of Stuart in the reign of James II.

10. Describe the career and policy of Wolsey, *or* Thomas Cromwell.

11. Give an account of Henry VIII's schemes and proceedings with regard to Scotland.

12. Describe the movement by which the Reformation was effected in Scotand.

13. What important changes took place in Ireland during the Tudor period?

14. What are the leading features in Elizabeth's ecclesiastical policy?

SECOND PAPER.

SATURDAY, 27*th March* 1897.—3 *to* 5 *o'clock.*

N.B.—*Not more than* SEVEN *questions to be attempted altogether, and not more than* FOUR *in either Section.*

SECTION I.

1. Explain the chief questions of dispute between James I and his first Parliament.

2. Give an account of the proceedings of the Parliament of 1621, or of that of 1628.

3. Give illustrations of, and reasons for the widespread resistance to Charles I's government in Scotland.

4. What circumstances delayed the success of Parliament in the First Civil War, and by what means was a change effected?

5. Give an account of Cromwell's settlement of Ireland, and show how far it was modified at the Restoration.

6. Show how the fear of Roman Catholicism affected the action of Charles II's Parliaments.

7. Give the reasons for the different Dutch Wars of the seventeenth century.

SECTION II.

8. Explain the policy which led to the Grand Alliance. How far was it successful?

9. Trace the growth of Party Government in the reign of Queen Anne.

10. What do you consider the chief merits and defects of Walpole?

11. Explain and criticise the policy of Hastings or the Marquis Wellesley in India.

12. What advantages were secured by Britain in the War with Napoleon from the possession of supremacy at sea?

13. Trace the policy of Britain with regard to the Eastern Question from 1827 to 1878.

14. What circumstances led to the granting of self-government to the Colonies?

ART AND ARCHÆOLOGY.

FIRST PAPER.—HISTORICAL.

FRIDAY, 26*th March* 1897.—3 *to* 5 *o'clock.*

Not more than SEVEN *questions to be attempted.*

1. Describe generally the remains left by neolithic man, enumerating the places where they are chiefly found. Discuss very briefly the light they throw on the formative instincts of man.

2. Describe the statue of Chefren, at Ghizeh, and discuss the light it throws on the condition of Egyptian civilisation under the Ancient Empire.

3. Describe (1) the rock-cut tombs of Beni-Hassan (2) an

Assyrian palace, pointing out the modifications caused by religious beliefs, soil, climate, and materials.

4. Give a general idea of the works of art made by the Phœnicians for King Solomon. What sort of artistic influence would you expect the Phœnicians to have exercised over the early Greeks?

5. Describe, and illustrate by sketch plans, the different uses of the Colonnade in the temples of the ancient world.

6. Enumerate those sculptors who show Greek art at its zenith; describe and account for its rapid decadence.

7. Give an account of the mosaic pictures from the life of Christ in S. Apollinare Nuovo at Ravenna, and show how they illustrate early Christian feeling in art.

8. Contrast the development of sculpture in Florence with that of painting, between the 13th and the 16th centuries, and account for the earlier maturity of the former.

9. Write a short account of Lorenzo Ghiberti and his works, and criticise his art; *or* do the same for Leonardo da Vinci.

10. Give an account of the origin and progress of the Umbrian school of painting, up to Raffael's visit to Florence in 1504.

11. Describe the characteristics of German painting in the early years of the 16th century, with special regard to Dürer and Holbein, and contrast its spirit with that of the contemporary Italians.

12. Account for the sudden development of the Dutch school of the 17th century, and for the extraordinary excellence to which it attained. Enumerate, with reference to some examples, the chief kinds of pictures produced by the school.

SECOND PAPER.—CRITICAL AND TECHNICAL.

SATURDAY, *27th March* 1897.—9 *to* 11 *o'clock.*

(*Not more than* SEVEN *questions to be attempted.*)

1. What is meant by "transferred" motives of ornament?

What objections are there to the procedure indicated by the term? Refer in your answer to illustrative examples.

2. Discuss the influence of materials—bronze, wood, granite, limestone, brick, etc.—on the forms taken by art in the ancient world.

3. Enumerate the chief theories which have been propounded to explain the pedimental groups of the Parthenon. Contrast the "Theseus" of Pheidias with the "Hermes" of Praxiteles.

4. Describe the system organised by the Romans for the carrying out of public works.

5. What differences in the treatment of relief do we find in the following:—*A*. Greek friezes of the best time. *B*. Late Classical and early Christian sarcophagi. *C*. The pulpit of Nicola Pisano. *D*. The Ghiberti gates?

6. Describe the technical process of any *one* of the following:—*A*. Fresco painting. *B*. Stained glass window making. *C*. Niello work.

7. Summarise Theophilus' "Apology" for the practice of the arts as part of the religious life, and show how his arguments may have a bearing on modern artistic questions.

8. Define the one essential principle which distinguishes Gothic from all previous forms of architecture, and show how the characteristic features of the French Gothic Cathedral result from this.

9. Contrast the portraits of Holbein with those of Velasquez, and the "Corporation pieces" of Hals with those of Rembrandt.

10. What would you consider a complete scheme of mural decoration for a church according to mediæval ideas? How far do the following display a complete scheme of the kind:—The Arena Chapel at Padua; the Sistine Chapel, S. Apollinare Nuovo at Ravenna?

11. Discuss the influence of the Festival on Greek sculpture and Italian painting.

12. Explain the terms—*Serdab, cornea, cloisonné, miniare, arcosolium, scriptorium, niello, repoussé, rocaille.*

CONSTITUTIONAL LAW AND HISTORY—ROMAN LAW—PUBLIC LAW.

See Papers under Faculty of Law.

Examination Papers for Degree of M.A. with Honours.

I.—CLASSICS.

LATIN.

MONDAY, 29*th March* 1897.—9 *to* 12 *o'clock.*

For Latin Prose:—

Gentlemen, your Recorder has said very truly, that whoever, in this free and enlightened state, aims at political eminence, and discharges political duties, must expect to have his conduct scrutinized and every action of his public life sifted with no ordinary jealousy, and with no sparing criticism: and such may have been my lot as much as that of other public men. But, gentlemen, unmerited obloquy seldom fails of an adequate, though perhaps tardy, compensation. I must think myself, as my honourable friend has said, eminently fortunate, if such compensation as he describes has fallen to me at an earlier period than to many others; if I dare flatter myself (as his partiality has flattered me), that the sentiments that you are kind enough to entertain for me are in unison with those of the country; if, in addition to the justice done me by my friends, I may, as he has assured me, rely upon a candid construction even from political opponents. Gentlemen, the secret of such a result does not lie deep. It consists only in an honest and

undeviating pursuit of what one conscientiously believes to be one's public duty—a pursuit which, steadily continued, will, however detached and separate parts of a man's conduct may be viewed under the influence of partialities or prejudices, obtain for it, when considered as a whole, the approbation of all honest and honourable minds. Any man may occasionally be mistaken as to the means most conducive to the end which he has in view; but if the end be just and praiseworthy, it is by that he will be ultimately judged, either by his contemporaries or by posterity. Gentlemen, the end which I confess I have always had in view, and which appears to me the legitimate object of pursuit to a British statesman, I can describe in one word. The language of modern philosophy is wisely and diffusively benevolent. Gentlemen, I hope that my heart beats as high for the general interests of humanity as that of any one who vaunts his philanthropy most highly; but I am contented to confess that, in the conduct of political affairs, the grand object of my contemplation is the interest of England.

CANNING.

GREEK.

MONDAY, 29*th March* 1897.—2 *to* 5 *o'clock.*

Translate with short notes, where these are needed to supplement the translation:—

(1) Τὸν δ' αὖ Νεστορίδης Πεισίστρατος ἀντίον ηὔδα·
"'Ατρείδη Μενέλαε Διοτρεφὲς, ὄρχαμε λαῶν,
κείνου μέν τοι ὅδ' υἱὸς ἐτήτυμον, ὡς ἀγορεύεις·
ἀλλὰ σαόφρων ἐστὶ, νεμεσσᾶται δ' ἐνὶ θυμῷ
ὧδ' ἐλθὼν τὸ πρῶτον ἐπεσβολίας ἀναφαίνειν
ἄντα σέθεν, τοῦ νῶϊ θεοῦ ὣς τερπόμεθ' αὐδῇ.
αὐτὰρ ἐμὲ προέηκε Γερήνιος ἱππότα Νέστωρ
τῷ ἅμα πομπὸν ἔπεσθαι· ἐέλδετο γάρ σε ἰδέσθαι,
ὄφρα οἱ ἢ τι ἔπος ὑποθήσεαι ἠέ τι ἔργον.

πολλὰ γὰρ ἄλγε' ἔχει πατρὸς παῖς οἰχομένοιο
ἐν μεγάροις, ᾧ μὴ ἄλλοι ἀοσσητῆρες ἔωσιν,
ὡς νῦν Τηλεμάχῳ ὁ μὲν οἴχεται, οὐδέ οἱ ἄλλοι
εἶσ' οἵ κεν κατὰ δῆμον ἀλάλκοιεν κακότητα."

Τὸν δ' ἀπαμειβόμενος προσέφη ξανθὸς Μενέλαος
"ὤ πόποι, ἦ μάλα δὴ φίλου ἀνέρος υἷος ἐμὸν δῶ
ἵκεθ', ὃς εἵνεκ' ἐμεῖο πολέας ἐμόγησεν ἀέθλους·
καί μιν ἔφην ἐλθόντα φιλησέμεν ἔξοχον ἄλλων
Ἀργείων, εἰ νῶϊν ὑπεὶρ ἅλα νόστον ἔδωκεν
νηυσὶ θοῇσι γενέσθαι Ὀλύμπιος εὐρύοπα Ζεύς.
καί κέ οἱ Ἄργεϊ νάσσα πόλιν καὶ δώματ' ἔτευξα,
ἐξ Ἰθάκης ἀγαγὼν σὺν κτήμασι καὶ τέκεϊ ᾧ
καὶ πᾶσιν λαοῖσι, μίαν πόλιν ἐξαλαπάξας,
αἳ περιναιετάουσιν, ἀνάσσονται δ' ἐμοὶ αὐτῷ.

Comment on the syntax of *ὑποθήσεαι*, *ἀλάλκοιεν*, *εἰ . . . ἔδωκε*, and on the scansion of *τέκεϊ ᾧ*.

(2) ἐξ οὗ πολύκλειτον καθ' Ἕλλανας γένος Ἰαμιδᾶν.
ὄλβος ἅμ' ἕσπετο· τιμῶντες δ' ἀρετὰς
ἐς φανερὰν ὁδὸν ἔρχονται. τεκμαίρει
χρῆμ' ἕκαστον· μῶμος ἐξ ἄλλων κρέμαται φθονεόντων
τοῖς, οἷς ποτε πρώτοις περὶ δωδέκατον δρόμον
ἐλαυνόντεσσιν αἰδοία ποτιστάξῃ Χάρις εὐκλέα μορφάν.
εἰ δ' ἐτήμως ὑπὸ Κυλλάνας ὄρους, Ἀγησία, μάτρωες ἄνδρες
ναιετάοντες ἐδώρησαν θεῶν κάρυκα λιταῖς θυσίαις
πολλὰ δὴ πολλαῖσιν Ἑρμᾶν εὐσεβέως, ὃς ἀγῶνας ἔχει μοῖράν
τ' ἀέθλων
Ἀρκαδίαν τ' εὐάνορα τιμᾷ· κεῖνος, ὦ παῖ Σωστράτου,
σὺν βαρυγδούπῳ πατρὶ κραίνει σέθεν εὐτυχίαν.

(3) ὁ δὲ τὰν λευκώλενον
θρέψατο παῖδα Κυράναν· ἁ μὲν οὔθ' ἵππων παλιμβάμων
ἐφίλησεν ὁδούς,
οὔτε δεῖπνον τέρψιας οὔθ' ἑταρᾶν οἰκουρίαν,
ἀλλ' ἀκόντεσσιν τε χαλκέοις

φασγάνῳ τε μαρναμένα κεράιζεν ἀγρίους
θῆρας, ἦ πολλάν τε καὶ ἡσύχιον
βουσὶν εἰρήναν παρέχοισα πατρῴαις, τὸν δὲ σύγκοιτον
γλυκὺν
παῦρον ἐπὶ γλεφάροις
ὕπνον ἀναλίσκοισα ῥέποντα πρὸς ἀῶ.
κίχε νιν λεόντί ποτ' εὐρυφαρέτρας
ὀβρίμῳ μούναν παλαίοισαν
ἄτερ ἐγχέων ἑκάεργος Ἀπόλλων.
αὐτίκα δ' ἐκ μεγάρων Χείρωνα προσέννεπε φωνᾷ·
Σεμνὸν ἄνδρα, Φιλυρίδη, προλιπὼν θυμὸν γυναικὸς καὶ
μεγάλαν δύνασιν
θαύμασον, οἷον ἀταρβεῖ νεῖκος ἄγει κεφαλᾷ,
μόχθου καθύπερθε νεᾶνις
ἦτορ ἔχοισα· φόβῳ δ' οὐ κεχείμανται φρένας.
τίς νιν ἀνθρώπων τέκεν; ποίας δ' ἀποσπασθεῖσα φύτλας
ὀρέων κευθμῶνας ἔχει σκιοέντων;

(4) *εἴη δ' ἂν καὶ πολύκοινον· δυνατὸν γὰρ ὑπάρξαι πᾶσι τοῖς μὴ πεπηρωμένοις πρὸς ἀρετὴν διά τινος μαθήσεως καὶ ἐπιμελείας. εἰ δ' ἐστὶν οὕτω βέλτιον ἢ τὸ διὰ τύχην εὐδαιμονεῖν, εἴλογον ἔχειν οὕτως, εἴπερ τὰ κατὰ φύσιν, ὡς οἷόν τε κάλλιστα ἔχειν, οὕτω πέφυκεν, ὁμοίως δὲ καὶ τὰ κατὰ τέχνην καὶ πᾶσαν αἰτίαν, καὶ μάλιστα (τὰ) κατὰ τὴν ἀρίστην. τὸ δὲ μέγιστον καὶ κάλλιστον ἐπιτρέψαι τύχῃ λίαν πλημμελὲς ἂν εἴη. συμφαινὲς δ' ἐστὶ καὶ ἐκ τοῦ λόγου τὸ ζητούμενον· εἴρηται γὰρ ψυχῆς ἐνέργεια κατ' ἀρετήν ποιά τις. τῶν δὲ λοιπῶν ἀγαθῶν τὰ μὲν ὑπάρχειν ἀναγκαῖον, τὰ δὲ συνεργὰ καὶ χρήσιμα πέφυκεν ὀργανικῶς. ὁμολογούμενα δὲ ταῦτ' ἂν εἴη καὶ τοῖς ἐν ἀρχῇ· τὸ γὰρ τῆς πολιτικῆς τέλος ἄριστον ἐτίθεμεν, αὕτη δὲ πλείστην ἐπιμέλειαν ποιεῖται τοῦ ποιούς τινας καὶ ἀγαθοὺς τοὺς πολίτας ποιῆσαι καὶ πρακτικοὺς τῶν καλῶν. εἰκότως οὖν οὔτε βοῦν οὔτε ἵππον οὔτε ἄλλο τῶν ζῴων οὐδὲν εὐδαιμον λέγομεν· οὐδὲν γὰρ αὐτῶν οἷόν τε κοινωνῆσαι τοιαύτης ἐνεργείας.*

Elucidate the connection of the thought.

(5) εἰ μὲν οὖν ἦσαν οἱ λόγοι αὐτάρκεις πρὸς τὸ ποιῆσαι ἐπιεικεῖς, πολλοὺς ἂν μισθοὺς καὶ μεγάλους δικαίως ἔφερον κατὰ τὸν Θέογνιν, καὶ ἔδει ἂν τούτους πορίσασθαι· νῦν δὲ φαίνονται προτρέψασθαι μὲν καὶ παρορμῆσαι τῶν νέων τοὺς ἐλευθερίους ἰσχύειν, ἦθός τ' εὐγενὲς καὶ ὡς ἀληθῶς φιλόκαλον ποιῆσαι ἂν κατοκώχιμον ἐκ τῆς ἀρετῆς, τοὺς δὲ πολλοὺς ἀδυνατεῖν πρὸς καλοκαγαθίαν προτρέψασθαι· οὐ γὰρ πεφύκασιν αἰδοῖ πειθαρχεῖν ἀλλὰ φόβῳ, οὐδ' ἀπέχεσθαι τῶν φαύλων διὰ τὸ αἰσχρὸν ἀλλὰ διὰ τὰς τιμωρίας· πάθει γὰρ ζῶντες τὰς οἰκείας ἡδονὰς διώκουσι καὶ δι' ὧν αὗται ἔσονται, φεύγουσι δὲ τὰς ἀντικειμένας λύπας. τοῦ δὲ καλοῦ καὶ ὡς ἀληθῶς ἡδέος οὐδ' ἔννοιαν ἔχουσιν, ἄγευστοι ὄντες. τοὺς δὴ τοιούτους τίς ἂν λόγος μεταρρυθμίσαι; οὐ γὰρ οἷόν τε ἢ οὐ ῥᾴδιον τὰ ἐκ παλαιοῦ τοῖς ἤθεσι κατειλημμένα λόγῳ μεταστῆσαι· ἀγαπητὸν δ' ἂν ὅσως ἐστὶν εἰ πάντων ὑπαρχόντων δι' ὧν ἐπιεικεῖς δοκοῦμεν γίνεσθαι, μεταλάβοιμεν τῆς ἀρετῆς.

(6) ἐν τούτῳ δὲ καὶ τὸν ἀπὸ τῆς πέτρας κατῆγον ἕτεροι βοῶντα μηδὲν ἀδικεῖν, ἀλλ' ἀνῃρηκέναι δικαίως τὸν ἄνθρωπον ὑπὲρ πατρὸς τεθνηκότος, ὃν ἐκεῖνος ἀπεκτονήκοι πρότερον ἐν Λεοντίνοις. καὶ μαρτυροῦντας εἶχεν ἐνίους τῶν παρόντων, θαυμάζοντας ἅμα τῆς τύχης τὴν εὐμηχανίαν, ὡς ἀ' ἑτέρων ἕτερα κινοῦσα καὶ συνάγουσα πάντα πόρρωθεν καὶ συγκαταπλέκουσα τοῖς πλεῖστον διαφέρειν δοκοῦσι καὶ μηδὲν ἔχειν πρὸς ἄλληλα κοινὸν ἀεὶ τοῖς ἀλλήλων χρῆται καὶ τέλεσι καὶ ἀρχαῖς. τὸν μὲν οὖν ἄνθρωπον ἐστεφάνωσαν οἱ Κορίνθιοι δέκα μναῖς, ὅτι τῷ φυλάττοντι δαίμονι τὸν Τιμολέοντα πάθος ἔχρησε δίκαιον καὶ τὸν ἐκ πολλοῦ παρόντα θυμὸν αὐτῷ πρότερον οὐ κατανήλωσεν, ἀλλὰ μετ' αἰτίας ἰδίας πρὸς τὴν ἐκείνου σωτηρίαν ἀπὸ τύχης διετήρησεν. ἡ δ' εἰς τὸν παρόντα καιρὸν εὐτυχία καὶ πρὸς τὰ μέλλοντα ταῖς ἐλπίσιν ἐπῆρεν ὁρῶντας, ὡς ἱερὸν ἄνδρα καὶ σὺν θεῷ τιμωρὸν ἥκοντα τῇ Σικελίᾳ, τὸν Τιμολέοντα σέβεσθαι καὶ φυλάττειν.

(7) ὁ δὲ ποιητὴς Ἴων μοθωνικὴν φησι τὴν ὁμιλίαν καὶ ὑπότυφον εἶναι τοῦ Περικλέους, καὶ ταῖς μεγαλαυχίαις αὐτοῦ πολλὴν ὑπεροψίαν ἀναμεῖχθαι καὶ περιφρόνησιν τῶν ἄλλων· ἐπαινεῖ δὲ τὸ

Κίμωνος ἐμμελὲς καὶ ὑγρὸν καὶ μεμουσωμένον ἐν ταῖς συμπεριφοραῖς. ἀλλ' Ἴωνα μέν, ὥσπερ τραγικὴν διδασκαλίαν, ἀξιοῦντα τὴν ἀρετὴν ἔχειν τι πάντως καὶ σατυρικὸν μέρος ἐῶμεν· τοὺς δὲ τοῦ Περικλέους τὴν σεμνότητα δοξοκοπίαν τε καὶ τῦφον ἀποκαλοῦντας ὁ Ζήνων παρεκάλει καὶ αὐτούς τι τοιοῦτο δοξοκοπεῖν, ὡς τῆς προσποιήσεως αὐτῆς τῶν καλῶν ὑποποιούσης τινὰ λεληθότως ζῆλον καὶ συνήθειαν.

TUESDAY, 30*th March* 1897.—9 *to* 12 *o'clock.*

For Greek Prose :—

But the fact is, no two things can be more different than the courage of an outlaw and that of a soldier. The first is founded on familiarity with danger; it is the virtue of rude times, and can be obtained only by repeated exposure to peril. The second is founded on the point of honour; it can exist only in the most artificial state of society, and it is so far from requiring repeated exposures, that it is often most perfectly exhibited by men who were never in danger before in their lives. The first arises from the contempt which is the proverbial result of familiarity. A man who has often been in danger has learned to distinguish its real from its apparent symptoms, to fear the lightning, not the thunder. He has learned to balance the hazards of different modes of escape—to wait the opportunity for putting into practice that which appears the most promising, and to snatch that opportunity when, on the whole, it appears probable that a better will not offer. All this supposes great calmness, but is compatible with thorough detestation of all unnecessary risk. It not only is compatible with such a detestation, but its natural tendency, if uncounteracted by other causes, is to produce it. The constant association in such a man's mind has been that it is a thing to be as much as possible avoided. His constant meditation has been, "How shall I attain my object with the least hazard, and having attained it, how shall I best provide for my safety?" Such habits fit him admirably for avoiding danger,

and for encountering it when it cannot be avoided; but very ill for thrusting himself into it when it can, or for continuing in it when any mode of escape is open. No man can show more calmness in danger than a North American Indian, or try more frightful modes of escape, if they are the best that offer, or fight more desperately, if he is absolutely forced to fight: but he will endure any fatigue, cold, sleeplessness, and famine, to surprise his deadliest enemy, rather than meet him on fair or nearly fair terms.

NASSAU SENIOR.

LATIN.

TUESDAY, 30*th March* 1897.—2 *to* 5 *o'clock.*

1. Translate:—

PI. Post autem advexit parasitos secum— GE. Hei, perii miser.

PI. Ridiculissumos. GE. Revorram hercle hoc quod convorri modo.

Venales logi sunt illi quos negabam vendere.

Illicet: iam meo malost quod malevolentes gaudeant.

Hercules, qui deus sis, sane discessisti non bene.

PH. Vidistin virum sororis Pamphilum? PI. Non. PH. Non adest?

PI. Immo venisse cum simitu aiebant illi: ego huc citus

Praecucurri, ut nuntiarem nuntium exoptabilem.

PH. I intro, Pinacium, iube famulos rem divinam mi adparent.

Bene vale. GE. Vin administrem? PH. Sat servorum habeo domi.

GE. Enimvero, Gelasime, opinor provenisti futtile,

Si neque ille adest neque hic qui venit quicquam subvenit.

Ibo intro ad libros et discam de dictis melioribus:

Nam ni illos homines expello, ego occidi planissume.

2. Suspicito caeli clarum purumque colorem,

Quaeque in se cohibet, palantia sidera passim,
Lunamque et solis praeclara luce nitorem;
Omnia quae nunc si primum mortalibus essent,
Ex inproviso si nunc obiecta repente,
Quid magis his rebus poterat mirabile dici
Aut minus ante quod auderent fore credere gentes?
Nil, ut opinor: ita haec species miranda fuisset.
Quam tibi iam nemo, fessus satiate videndi,
Suspicere in caeli dignatur lucida templa!
Desine quapropter novitate exterritus ipsa
Expuere ex animo rationem, sed magis acri
Iudicio perpende et, si tibi vera videntur,
Dede manus, aut, si falsum est, accingere contra.
Quaerit enim rationem animus, cum summa loci sit
Infinita foris haec extra moenia mundi,
Quid sit ibi porro quo prospicere usque velit mens
Atque animi iactus liber quo pervolet ipse.

3. Iam nunc minaci murmure cornuum
Perstringis aures: iam litui strepunt:
Iam fulgor armorum fugaces
Terret equos equitumque vultus.
Audire magnos iam videor duces
Non indecoro pulvere sordidos,
Et cuncta terrarum subacta
Praeter atrocem animum Catonis.
Iuno et deorum quisquis amicior
Afris inulta cesserat impotens
Tellure victorum nepotes
Rettulit inferias Iugurthae.
Quis non Latino sanguine pinguior
Campus sepulcris impia proelia
Testatur auditumque Medis
Hesperiae sonitum ruinae?

Qui gurges, aut quae flumina lugubris
Ignara belli ?

4. Perditur haec inter misero lux, non sine votis,
O rus ! quando ego te adspiciam ? quandoque licebit,
Nunc veterum libris, nunc somno et inertibus horis,
Ducere sollicitae iucunda oblivia vitae ?
O quando faba Pythagorae cognata simulque
Uncta satis pingui ponentur oluscula lardo ?
O noctes coenaeque deum ! quibus ipse meique
Ante larem proprium vescor vernasque procaces
Pasco libatis dapibus. Prout cuique libido est,
Siccat inaequales calices conviva, solutus
Legibus insanis ; seu quis capit acria fortis
Pocula, seu modicis uvescit laetius. Ergo
Sermo oritur, non de villis domibusve alienis,
Nec male necne Lepos saltet.

5. Iam, quod deliberationis nostrae caput est, agri sunt fertiles pingues aquosi, constant campis vineis silvis, quae materiam et ex ea reditum sicut modicum ita statum praestant. Sed haec felicitas terrae inbecillis cultoribus fatigatur. Nam possessor prior saepius vendidit pignora, et dum reliqua colonorum minuit ad tempus, vires in posterum exhausit, quarum defectione rursus reliqua creverunt. Sunt ergo instruendi eo pluris quod frugi mancipiis : nam nec ipse usquam vinctos habeo nec ibi quisquam. Superest ut scias quanti videantur posse emi ; sestertio tricies, non quia non aliquando quinquagies fuerint, verum et hac paenuria colonorum et communi temporis iniquitate ut reditus agrorum sic etiam pretium retro abiit. Quaeris an hoc ipsum tricies facile colligere possimus ? sum quidem prope totus in praediis, aliquid tamen fenero, nec molestum erit mutuari ; accipiam a socru, cuius arca non secus ac mea utor.

6. Exspectata diu tandem provincia quum te
Rectorem accipiet, pone irae frena modumque,

Pone et avaritiae, miserere inopum sociorum:
Ossa vides rerum vacuis exsucta medullis.
Respice, quid moneant leges, quid curia mandet,
Praemia quanta bonos maneant, quam fulmine iusto
Et Capito et Numitor ruerint damnante senatu
Piratae Cilicum. Sed quid damnatio confert?
Praeconem, Chaerippe, tuis circumspice pannis,
Quum Pansa eripiat, quidquid tibi Natta reliquit,
Iamque tace; furor est post omnia perdere naulum.
Non idem gemitus olim neque vultus erat par
Damnorum sociis florentibus et modo victis.
Plena domus tunc omnis, et ingens stabat acervus
Nummorum, Spartana chlamys, conchylia Coa,
Et cum Parrhasii tabulis signisque Myronis
Phidiacum vivebat ebur, nec non Polycliti
Multus ubique labor; rarae sine Mentore mensae.

7. Otho interim contra spem omnium non deliciis neque desidia torpescere: dilatae voluptates, dissimulata luxuria et cuncta ad decorem imperii composita; eoque plus formidinis adferebant falsae virtutes et vitia reditura. Marium Celsum consulem designatum, per speciem vinculorum saevitiae militum subtractum, acciri in Capitolium iubet; clementiae titulus e viro claro et partibus inviso petebatur. Celsus constanter servatae erga Galbam fidei crimen confessus exemplum ultro imputavit. Nec Otho quasi ignosceret, sed deos testes mutuae reconciliationis adhibens, statim inter intimos amicos habuit, et mox bello inter duces delegit; mansitque Celso velut fataliter etiam pro Othone fides integra et infelix.

8. Ipse aversus a consiliis belli 'hunc' inquit 'animum, hanc virtutem vestram ultra periculis obicere nimis grande vitae meae pretium puto. Quanto plus spei ostenditis, si vivere placeret, tanto pulchrior mors erit. Experti in vicem sumus ego ac fortuna. Nec tempus conputaveritis: difficilius est temperare

felicitati, qua te non putes diu usurum. Civile bellum a Vitellio coepit, et ut de principatu certaremus armis initium illic fuit: ne plus quam semel certemus, penes me exemplum erit; hinc Othonem posteritas aestimet. Fruetur Vitellius fratre, coniuge, liberis: mihi non ultione neque solaciis opus est. Alii diutius imperium tenuerint: nemo tam fortiter reliquerit.

GREEK.

WEDNESDAY, 31*st March* 1897.—9 *to* 12 *o'clock.*

Translate:—

(1) τὸ πρᾶγμα μεῖζον, εἴ τις οἴεται τόδε
βροτὸς δικάζειν· οὐδὲ μὴν ἐμοὶ θέμις
φόνου διαιρεῖν ὀξυμηνίτους δίκας·
ἄλλως τε καὶ σὺ μὲν κατηρτυκὼς ἐμοῖς
ἱκέτης προσῆλθες καθαρὸς ἀβλαβὴς δόμοις·
ἐγὼ δ' ἄμομφον ὄντα σ' αἱροῦμαι πόλει·
αὗται δ' ἔχουσι μοῖραν οὐκ εὐπέμπελον,
καὶ μὴ τυχοῦσαι πράγματος νικηφόρου,
χώρᾳ μεταῦθις ἰὸς ἐκ φρονημάτων
πέδῳ πεσὼν ἄφερτος αἰανὴς νόσος.
τοιαῦτα μὲν τάδ' ἐστίν· ἀμφότερα, μένειν
πέμπειν τε, δυσπήμαντ' ἀμηχάνως ἐμοί.
ἐπεὶ δὲ πρᾶγμα δεῦρ' ἐπέσκηψεν τόδε,
φόνων δικαστὰς ὁρκίους αἱρουμένη
θεσμὸν τὸν εἰς ἅπαντ' ἐγὼ θήσω χρόνον.
ὑμεῖς δὲ μαρτύριά τε καὶ τεκμήρια
καλεῖσθ', ἀρωγὰ τῆς δίκης ὁρκώματα·
κρίνασα δ' ἀστῶν τῶν ἐμῶν τὰ βέλτατα
ἥξω, διαιρεῖν τοῦτο πρᾶγμ' ἐτητύμως
ὅρκον πορόντας μηδὲν ἔκδικον φράσειν.

AESCHYLUS, *Eumenides*, 470-489.

(2) Γλαύκας ὦ φιλέριθ' ἁλακάτα δῶρον Ἀθανάας

γύναιξιν, νόος οἰκωφελίας αἶσιν ἐπάβολος,
θάρσεισ' ἄμμιν ὑμάρτη πόλιν ἐς Νείλεω ἀγλάαν,
ὄππυι Κύπριδος ἶρον καλάμω χλῶρον ὑπ' ἀπάλω.
τυῖδε γὰρ πλόον εὐάνεμον αἰτήμεθα παὰρ Δίος,
ὄππως ξέννον ἔμον τέρψομ' ἴδων κἀντιφιλήσομαι,
Νικίαν, Χαρίτων ἱμεροφώνων ἷερον φύτον,
καὶ σὲ τὰν ἐλέφαντος πολυμόχθω γεγενημέναν
δῶρον Νικιάας εἰς ἁλόχω χέρρας ὀπάσσομεν,
σὺν τᾷ πόλλα μὲν ἔργ' ἐκτελέσεις ἀνδρείοις πέπλοις,
πόλλα δ' οἷα γύναικες φορέοισ' ὐδάτινα βράκη.
δὶς γὰρ μάτερες ἄρνων μαλάκοις ἐν βοτάνᾳ πόκοις
πέξαιντ' αὐτοένει, Θευγένιδός γ' ἕννεκ' ἐϋσφύρω·
οὕτως ἀνυσίεργος, φιλέει δ' ὅσσα σαόφρονες.
οὐ γὰρ εἰς ἀκίρας οὐδ' ἐς ἀέργω κεν ἐβολλόμαν
ὄπασσαί σε δόμοις ἀμμετέρας ἔσσαν ἀπὺ χθόνος.
καὶ γάρ τοι πάτρις, ἂν ὦᾳ 'Εφύρας κτίσσέ ποτ' 'Αρχίας
νάσω Τρινακρίας μύελον, ἄνδρων δοκίμων πόλιν.
νῦν μὰν οἶκον ἔχοισ' ἄνερος, ὃς πόλλ' ἐδάη σόφα
ἀνθρώποισι νόσοις φάρμακα λύγραις ἀπαλαλκέμεν,
οἰκήσεις κατὰ Μίλλατον ἐράνναν πεδ' Ἰαόνων,
ὡς εὐαλάκατος Θεύγενις ἐν δαμότισιν πέλῃ,
καί οἱ μνᾶστιν ἄει τῶ φιλαοίδω παρέχῃς ξένω.
κῆνο γάρ τις ἐρεῖ τῶπος ἴδων σ'· ἦ μεγάλα χάρις
δώρῳ σὺν ὀλίγῳ· πάντα δὲ τίματα τὰ παὰρ φίλων.

THEOCRITUS, *Idyll* xxviii.

(3) Ἀθηναίους γὰρ ἐς τὴν χώραν τήνδε ἐλθόντας πρῶτον μὲν ἐπὶ τῆς Σικελίας καταδουλώσει, ἔπειτ' εἰ κατορθώσειαν, καὶ τῆς Πελοποννήσου καὶ τῆς ἄλλης Ἑλλάδος, καὶ ἀρχὴν τὴν ἥδη μεγίστην τῶν τε πρὶν Ἑλλήνων καὶ τῶν νῦν κεκτημένους, πρῶτοι ἀνθρώπων ὑποστάντες τῷ ναυτικῷ, ᾧπερ πάντα κατέσχον, τὰς μὲν ναυικήκατε ἤδη ναυμαχίας, τὴν δ' ἐκ τοῦ εἰκότος νῦν νικήσετε. ἄνδρες γὰρ ἐπειδὰν ᾧ ἀξιοῦσι προὔχειν κολουθῶσι, τό γ' ὑπόλοιπον αὐτῶν τῆς δόξης ἀσθενέστερον αὐτὸ ἑαυτοῦ ἐστιν ἢ εἰ μηδ' ᾠήθησαν τὸ πρῶτον,

καὶ τῷ παρ' ἐλπίδα τοῦ αὐχήματος σφαλλόμενοι καὶ παρὰ ἰσχὺν τῆς δυνάμεως ἐνδιδόασιν· ὃ νῦν Ἀθηναίους εἰκὸς πεπονθέναι.

Ἡμῶν δὲ τό τε ὑπάρχον πρότερον, ὅπερ καὶ ἀνεπιστήμονες ἔτι ὄντες ἀπετολμήσαμεν, βεβαιότερον νῦν, καὶ τῆς δοκήσεως προσγεγενημένης αὐτῷ, τὸ κρατίστους εἶναι, εἰ τοὺς κρατίστους ἐνικήσαμεν, διπλασία ἑκαστοῦ ἡ ἐλπίς. τὰ δὲ πολλὰ πρὸς τὰς ἐπιχειρήσεις ἡ μεγίστη ἐλπὶς μεγίστην καὶ τὴν προθυμίαν παρέχεται. τά τε τῆς ἀντιμιμήσεως αὐτῶν τῆς παρασκευῆς ἡμῶν τῷ μὲν ἡμετέρῳ τρόπῳ ξυνήθη τέ ἐστι καὶ οὐκ ἀνάρμοστα πρὸς ἕκαστον αὐτῶν ἐσόμεθα· οἱ δ', ἐπειδὰν πολλοὶ μὲν ὁπλῖται ἐπὶ τῶν καταστρωμάτων παρὰ τὸ καθεστηκὸς ὦσι, πολλοὶ δὲ καὶ ἀκοντισταί, χερσαῖοι, ὡς εἰπεῖν, Ἀκαρνᾶνές τε καὶ ἄλλοι ἐπὶ ναῦς ἀναβάντες, οἳ οὐδ' ὅπως καθεζομένους χρὴ τὸ βέλος ἀφεῖναι εὑρήσουσι, πῶς οὐ σφαλοῦσί τε τὰς ναῦς καὶ ἐν σφίσιν αὐτοῖς πάντες, οὐκ ἐν τῷ αὑτῶν τρόπῳ κινούμενοι, ταράξονται; ἐπεὶ καὶ τῷ πλήθει τῶν νεῶν οὐκ ὠφελήσονται, εἴ τις καὶ τόδε ὑμῶν, ὅτι οὐκ ἴσαις ναυμαχήσει, πεφόβηται· ἐν ὀλίγῳ γὰρ πολλαὶ ἀργότεραι μὲν ἐς τὸ ὁρᾶν τι ὧν βούλονται ὄσονται, ῥᾷσται δὲ ἐς τὸ βλάπτεσθαι ἀφ' ὧν ἡμῖν παρεσκεύασται.

THUCYDIDES, vii. ch. 66, § 2—ch. 67, § 3.

(4) τίς οὖν δὴ τρόπος ἂν εἴη τῆς ὀρθῆς διανομῆς; πρῶτον μὲν τὸν αὐτῶν ὄγκον τοῦ ἀριθμοῦ δεῖ τάξασθαι, πόσον εἶναι χρεών· μετὰ δὲ τοῦτο τὴν διανομὴν τῶν πολιτῶν, καθ' ὁπόσα μέρη πλήθει καὶ ὁπηλίκα διαιρετέον αὐτούς, ἀνομολογητέον· ἐπὶ δὲ ταῦτα τήν τε γῆν καὶ τὰς οἰκήσεις ὅ τι μάλιστα ἴσας ἐπινεμητέον. ὄγκος δὴ πλήθους ἱκανὸς οὐκ ἄλλως ὀρθῶς γίγνοιτ' ἂν λεχθεὶς ἢ πρὸς τὴν γῆν καὶ τὰς τῶν πλησιοχώρων πόλεις, γῆς μέν, ὁπόση πόσους σώφρονας ὄντας ἱκανὴ τρέφειν, πλείονος δ' οὐδὲν προσδεῖ, πλήθους δέ, ὁπόσοι τοὺς προσχώρους ἀδικοῦντάς τε αὐτοὺς ἀμύνασθαι δυνατοὶ καὶ γείτοσιν ἑαυτῶν ἀδικουμένοις βοηθῆσαι μὴ παντάπασιν ἀπόρως δύναιντ' ἄν. ταῦτα δ' ἰδόντες τὴν χώραν καὶ τοὺς γείτονας ὁριούμεθα ἔργῳ καὶ λόγοις· νῦν δὲ σχήματος ἕνεκα καὶ ὑπογραφῆς, ἵνα περαίνηται, πρὸς τὴν νομοθεσίαν ὁ λόγος ἴτω. πεντάκις μὲν χίλιοι ἔστωσαν καὶ τετταράκοντα, ἀριθμοῦ τινὸς ἕνεκα προσήκοντος, γεωμόροι τε καὶ

ἀμυνοῦντες τῇ νομῇ· γῇ δὲ καὶ οἰκήσεις ὡσαύτως τὰ αὐτὰ μέρη διανεμηθήτων, γενόμενα ἀνὴρ καὶ κλῆρος ξυννομή. δύο μὲν δὴ μέρη τοῦ παντὸς ἀριθμοῦ τὸ πρῶτον νεμηθήτω, μετὰ δὲ ταῦτα τρία τὸν αὐτόν· πέφυκε γὰρ καὶ τέτταρα καὶ πέντε καὶ μέχρι τῶν δέκα ἐφεξῆς. δεῖ δὴ περὶ ἀριθμῶν τό γε τοσοῦτον πάντα ἄνδρα νομοθετοῦντα νενοηκέναι, τίς ἀριθμὸς καὶ ποῖος πάσαις πόλεσι χρησιμώτατος ἂν εἴη. λέγωμεν δὴ τὸν πλείστας καὶ ἐφεξῆς μάλιστα διανομὰς ἐν αὑτῷ κεκτημένον· οὐ μὲν δὴ πᾶς εἰς πάντα πάσας τομὰς εἴληχεν· ὁ δὲ τῶν τετταράκοντα καὶ πεντακισχιλίων εἵς τε πόλεμον καὶ ὅσα κατ' εἰρήνην πρὸς ἅπαντα τὰ ξυμβόλαια καὶ κοινωνήματα, εἰσφορῶν τε πέρι καὶ διανομῶν, οὐ πλείονς μιᾶς δεουσῶν ἑξήκοντα δύναιτ' ἂν τέμνεσθαι τομῶν, ξυνεχεῖς δὲ ἀπὸ μιᾶς μέχρι τῶν δέκα.

PLATO, *Laws*, v. 737 C—738 A.

LATIN.

WEDNESDAY, 31*st March* 1897.—2 *to* 5 *o'clock.*

GENERAL PAPER.

I.

Translate, with short explanatory or critical notes:—

1. Auspicio hodie optumo exivi foras:
   Mustela murem abstulit praeter pedes;
   Cum strena obscaevavit: spectatum hoc mihist.
2. Etsi praeterea tamen esse Acherusia templa
   Ennius aeternis exponit versibus edens,
   Quo neque *permanent* animae neque corpora nostra.
   permanent, edd., before Lachm.
3. Semper in adsiduo motu res quaeque geruntur
   Partibus *e* cunctis infernaque suppeditantur
   Ex infinito cita corpora materiai.
4. Quare etiam atque etiam paulum inclinare necessest
   Corpora; nec plus quam minimum, ne fingere motus
   Obliquos videamur et id res vera refutet.

5. Tristis item vetulae vitis sator atque *fatigat*
Temporis incusat *nomen* caelumque fatigat
Nec tenet omnia paulatim tabescere et ire
Ad *scopulum* spatio aetatis defessa vetusto.

Correct MS. reading, and explain the corruption.

6. Habentque
Tartara Panthoïden, iterum Orco
Demissum.

7. Mitte civiles super urbe curas.
Occidit Daci Cotisonis agmen:
Medus infestus sibi luctuosis
Dissidet armis.

8. Infamis Helenae Castor offensus vice,
Fraterque magni Castoris, victi prece,
Ademta vati reddidere lumina.

9. Vilis amicorum est annona, bonis ubi quid deest.

10. Nec sic incipies, ut scriptor cyclicus olim:
"Fortunam Priami cantabo et nobile bellum."

11. Si magna Asturici cecidit domus, horrida mater,
Pullati proceres, differt vadimonia praetor;
Tunc gemimus casus urbis, tunc odimus ignem.

12. Poenituit multos vanae sterilisque cathedrae,
Sicut Thrasymachi probat exitus atque Secundi
Carrinatis: et hunc inopem vidistis, Athenae,
Nil praeter gelidas ausae conferre cicutas.

13. Interea Megalesiacae spectacula mappae
Idaeum sollemne colunt, similisque triumpho
Praeda caballorum praetor sedet.

14. Sequuntur auditores actoribus similes, conducti et redempti: manceps convenitur: in media basilica tam palam sportulae quam in triclinio dantur: ex iudicio in iudicium pari mercede transitur.

15. Sed erat acre ingenium, incredibile studium, summa

vigilantia. Lucubrare Vulcanalibus incipiebat, non auspicandi causa sed studendi, statim a nocte multa, hieme vero ab hora septima, vel cum tardissime, octava, saepe sexta.

16. Exauctorati per eos dies tribuni, e praetorio Antonius Taurus et Antonius Naso, ex urbanis cohortibus Aemilius Pacensis, e vigiliis Iulius Fronto.

17. Septem a Neronis fine menses sunt, et iam plus rapuit Icelus quam quod Polycliti et Vatinii et Tigellini *cupierunt*. Minore avaritia ac licentia grassatus esset T. Vinius, si ipse imperasset: nunc et subiectos nos habuit tamquam suos et viles ut alienos.

cupierunt, Her. perierunt, M.

18. Sed procurator aderat Cornelius Fuscus, vigens aetate, claris natalibus. Prima iuventa *quietis* cupidine senatorium ordinem exuerat; idem pro Galba dux coloniae suae, eaque opera procurationem adeptus, susceptis Vespasiani partibus acerrimam bello facem praetulit.

II.

Three Questions should be attempted in each group.

Literature.

1. Consider Lucretius' use of the terms:—*coniuncta—creata—homoeomeria—primordia—summa rerum—minimae partes.*

2. In what ways did Roman Comedy and Roman Tragedy depart from their Greek models? Compare them in point of originality.

3. Estimate and illustrate the influence of the Augustan poets on later prose style.

4. Discuss the use of proper names in Roman Satire. To what extent did the satirists attack living persons? Consider Lucilius, Horace, Juvenal.

5. How far did the Roman poets succeed in treating poetically the city of Rome and the country around it?

History.

1. Give some account of the Licinian Laws of 367 B.C., and of the circumstances under which they were passed.

2. Describe the extent of Rome's empire, and the state of her domestic politics, in 146 B.C.

3. Describe carefully the changes made in the administration of the provinces (*a*) by Sulla, (*b*) by Augustus.

4. What do you know of Roman commerce and trade routes under the later Republic?

5. Give some account of Agrarian Reforms after C. Gracchus.

6. Describe the strength and disposition of the various Roman armies at the date of Galba's accession.

LATIN.

THURSDAY, 1*st April* 1897.—9 *to* 12 *o'clock.*

Translate:—

1. Equidem multos et vidi in hac civitate et audivi, non modo qui primoribus labris gustassent genus hoc vitae et extremis, ut dicitur, digitis attigissent, sed qui totam adulescentiam voluptatibus dedissent, emersisse aliquando et se ad frugem bonam, ut dicitur, recepisse, gravesque homines atque illustres fuisse. Datur enim concessu omnium huic aliqui ludus aetati et ipsa natura profundit adulescentiae cupiditates: quae si ita erumpunt, ut nullius vitam labefactent, nullius domum evertant, faciles et tolerabiles haberi solent.

Sed tu mihi videbare ex communi infamia iuventutis aliquam invidiam Caelio velle conflare. Itaque omne illud silentium, quod est orationi tributum tuae, fuit ob eam causam, quod uno reo proposito de multorum vitiis cogitabamus. Facile est accusare luxuriem. Dies iam me deficiat, si, quae dici in eam sententiam possunt, coner expromere: de corruptelis, de adulteriis, de protervitate, de sumptibus immensa oratio est. Ut tibi reum

neminem, sed vitia proponas, res tamen ipsa et copiose et graviter accusari potest. Sed vestrae sapientiae, iudices, est non abduci ab reo nec quos aculeos habeant severitas gravitasque vestra, quum eos accusator erexerit in rem, in vitia, in mores, in tempora, emittere in hominem et in reum, quum is non suo crimine, sed multorum vitio sit in quoddam odium iniustum vocatus. Itaque severitati tuae, ut oportet, ita respondere non audeo: erat enim meum deprecari vacationem adulescentiae veniamque petere: non, inquam audeo: perfugiis non utor aetatis, concessa omnibus iura dimitto: tantum peto, ut, si qua est invidia communis hoc tempore aeris alieni, petulantiae, libidinum iuventutis, quam video esse magnam, ne huic aliena peccata, ne aetatis ac temporum vitia noceant. Atque ego idem, qui haec postulo, quin criminibus, quae in hunc proprie conferuntur, diligentissime respondeam non recuso.

2. Nec minus Andromache digressu maesta supremo
Fert picturatas auri subtemine vestes
Et Phrygiam Ascanio chlamydem, nec cedit honori,
Textilibusque onerat donis ac talia fatur:
'Accipe et haec, manuum tibi quae monimenta mearum
Sint, puer, et longum Andromachae testentur amorem,
Coniugis Hectoreae. Cape dona extrema tuorum,
O mihi sola mei super Astyanactis imago.
Sic oculos, sic ille manus, sic ora ferebat;
Et nunc aequali tecum pubesceret aevo.'
Hos ego digrediens lacrimis adfabar obortis:
'Vivite felices, quibus est fortuna peracta
Iam sua; nos alia ex aliis in fata vocamur.
Vobis parta quies; nullum maris aequor arandum,
Arva neque Ausoniae semper cedentia retro
Quaerenda. Effigiem Xanthi Troiamque videtis,
Quam vestrae fecere manus, melioribus, opto,
Auspiciis et quae fuerit minus obvia Grais.

Siquando Thybrim vicinaque Thybridis arva
Intraro gentique meae data moenia cernam,
Cognatas urbes olim populosque propinquos
Epiro, Hesperia, quibus idem Dardanus auctor
Atque idem casus, unam faciemus utramque
Troiam animis; maneat nostros ea cura nepotes.'

3. Haec inter castae genius tutelaque mensae
Amphitryoniades multo mea cepit amore
Pectora nec longo satiavit lumina visu:
Tantus honos operi finesque inclusa per artos
Maiestas! Deus ille, deus; seseque videndum
Indulsit, Lysippe, tibi, parvusque videri
Sentirique ingens: et quum mirabilis intra
Stet mensura pedem, tamen exclamare libebit,
Si visus per membra feras: 'Hoc pectore pressus
Vastator Nemees; haec exitiale ferebant
Robur et Argoos frangebant brachia remos.'
Hoc spatio tam magna brevi mendacia formae!
Quis modus in dextra, quanta experientia docti
Artificis, curtae pariter gestamina mensae
Fingere, et ingentes animo versare colossos!
Tale nec Idaeis quicquam Telchines in antris,
Nec solidus Brontes, nec qui polit arma deorum
Lemnius, exigua potuisset ludere massa.
Nec torva effigies epulisque aliena remissis;
Sed qualem parci domus admirata Molorchi,
Aut Aleae lucis vidit Tegeaea sacerdos:
Qualis ab Oetaeis emissus in astra favillis
Nectar adhuc torva laetus Junone bibebat:
Sic mitis vultus, veluti de pectore gaudens
Hortetur mensas.

4. Sed evenit plerumque, ut in hac diligentia deterior etiam fiat oratio. Primum, quia sunt optima minime arcessita et

simplicibus atque ab ipsa veritate profectis similia. Nam illa, quae curam fatentur, et ficta atque composita videri etiam volunt, nec gratiam consequuntur et fidem amittunt propter id, quod sensus obumbrant et velut laeto gramine sata strangulant. Nam et, quod recte dici potest, circumimus amore verborum et, quod satis dictum est, repetimus et, quod uno verbo patet, pluribus oneramus et pleraque significare melius putamus quam dicere. Quid? quod nihil iam proprium placet, dum parum creditur disertum, quod et alius dixisset? A corruptissimo quoque poetarum figuras seu translationes mutuamur, tum demum ingeniosi scilicet, si ad intelligendos nos opus sit ingenio. Atqui satis aperte Cicero praeceperat, in dicendo vitium vel maximum esse a vulgari genere orationis atque a consuetudine communis sensus abhorrere. Sed ille durus atque ineruditus; nos melius, quibus sordet omne, quod natura dictavit, qui non ornamenta quaerimus sed lenocinia. Quasi vero sit ulla verborum nisi rei cohaerentium virtus; quae ut propria sint et dilucida et ornata et apte collocentur, si tota vita laborandum est: omnis studiorum fructus amissus est. Atqui plerosque videas haerentes circa singula, et dum inveniunt et dum inventa ponderant ac dimetiuntur. Quod si idcirco fieret, ut semper optimis uterentur: abominanda tamen haec infelicitas erat, quae et cursum dicendi refrenat et calorem cogitationis extinguit mora et diffidentia.

GREEK.

THURSDAY, 1*st April* 1897.—2 *to* 5 *o'clock.*

I. Translate the following passages, with short notes on points of Homeric syntax:—

(1) ὡς δὴ ἔγωγ' ὄφελον μάκαρός νύ τεν ἔμμεναι υἱὸς
ἀνέρος, ὃν κτεάτεσσιν ἑοῖς ἔπι γῆρας ἔτετμεν.

(2) λίσσετο δ' αἰεί
Ηφαιστον κλυτοεργὸν ὅπως λύσειεν Ἄρηα.

(3) ἀλλά τις ὀτρηρῶς Δολίον καλέσειε γέροντα.
(4) οὐδὲ γὰρ οὐδέ τις ἄλλος ἀνὴρ τάδε φάρμακ' ἀνέτλη,
ὅς κε πίῃ καὶ πρῶτον ἀμείψεται ἕρκος ὀδόντων.
(5) σῆμά τέ οἱ χεύω καὶ ἐπὶ κτέρεα κτερεΐξω
πολλὰ μάλ', ὅσσα ἔοικε, καὶ ἀνέρι μητέρα δώσω.
(6) δώμασι σοῖσιν ἀνάσσοις.
οἷσιν ten MSS.
(7) νῦν δέ σε τῶν ὄπιθεν γουνάζομαι, οὐ παρεόντων.
(8) μετὰ καὶ τόδε τοῖσι γενέσθω.
(9) ἀποστίλβοντες ἀλείφατος.

II. Translate, with notes on the syntax:—

(1) Ζεῦ τέλει', αἰεὶ διακρίνειν λόγον ἀνθρώπων.
(2) τὸ δὲ κλέος τηλόθεν δέδορκε τᾶν Ὀλυμπιάδων ἐν δρόμοις
Πέλοπος, ἵνα ταχυτὰς ποδῶν ἐρίζεται.
(3) ἐν δ' ἀγαθοῖσι κεῖται [v. l. κεῖνται]
πατρώιαι κεδναὶ πολίων κυβερνάσεις.
(4) ἀείδετο δὲ πᾶν τέμενος τερπναῖσι θαλίαις
τὸν ἐγκώμιον ἀμφὶ τρόπον.
(5) εἶπε δ' ἐν μέσσοις ἀπάγεσθαι, ὅς ἂν πρῶτος θορὼν
ἀμφί Foι ψαύσειε πέπλοις.

III. Translate with explanatory notes:—

(1) δοιὼ δὲ κυβιστητῆρε κατ' αὐτοὺς
μολπῆς ἐξάρχοντος ἐδίνευον κατὰ μέσσους.
HOMER, *Odyssey* iv. 18 19.
v. l. ἐξάρχοντες (Aristarchus).
(2) ἀντὶ κασιγνήτου ξεῖνός θ' ἱκέτης τε τέτυκται
ἀνέρι, ὅστ' ὀλίγον περ ἐπιψαύῃ πραπίδεσσιν.
Odyssey, viii. 546-7.
(3) σοφὸς ὁ πολλὰ Fειδὼς φυᾷ·
μαθόντες δὲ λάβροι
παγγλωσσίᾳ, κόρακες ὥς, ἄκραντα γαρύετον
Διὸς πρὸς ὄρνιχα θεῖον.
PINDAR, *Olymp.* ii. 94-97.

(4) *αὐτὰ δέ σφισιν ὥπασε τέχναν*
πᾶσαν ἐπιχθονίων Γλαυκῶπις ἀριστοπόνοις χερσὶ κρατεῖν.
ἔργα δὲ ζωοῖσιν ἐρπόντεσσί θ' ὁμοῖα κέλευθοι φέρον.
ἦν δὲ κλέος βαθύ. δαέντι δὲ καὶ σοφία μείζων ἄδολος τελέθει.
PINDAR, *Olymp.* vii. 50-53.

(5) *στάθμας δέ τινος ἑλκόμενοι*
περισσᾶς ἐνέπαξαν ἔλκος ὀδυναρὸν ἑᾷ πρόσθε καρδίᾳ,
πρὶν ὅσα φροντίδι μητίονται τυχεῖν.
PINDAR, *Pyth.* ii. 90-92.

(6) *πείθομαι γάρ νιν Πελίαν ἄθεμιν λευκαῖς πιθήσαντα φρασὶν*
ἀμετέρων ἀποσυλᾶσαι βιαίως ἀρχεδικᾶν τοκέων.
PINDAR, *Pyth.* iv. 109-113.

(7) *ἀρκτέον μὲν γὰρ ἀπὸ τῶν γνωρίμων, ταῦτα δὲ διττῶς· τὰ μὲν γὰρ ἡμῖν τὰ δ' ἁπλῶς.*
ARISTOTLE, *Ethics*, Bk. i. cap. 4, § 5.

(8) *Ἀπορήσειε δ' ἄν τις πῶς λέγομεν ὅτι δεῖ τὰ μὲν δίκαια πράττοντας δικαίους γίνεσθαι, τὰ δὲ σώφρονα σώφρονας· εἰ γὰρ πράττουσι τὰ δίκαια καὶ σώφρονα, ἤδη εἰσὶ δίκαιοι καὶ σώφρονες.*
ARISTOTLE, *Ethics*, Bk. ii. cap. 4, § 1.

(9) *Τέλος δὲ πάσης ἐνεργείας ἐστὶ τὸ κατὰ τὴν ἕξιν. καὶ τῷ ἀνδρείῳ δὲ ἡ ἀνδρεία καλόν. τοιοῦτον δὴ καὶ τὸ τέλος· ὁρίζεται γὰρ ἕκαστον τῷ τέλει.*
ARISTOTLE, *Ethics*, Bk. iii. cap. 7, § 6.

(10) *Ὁ δὲ μεγαλοπρεπὴς ἐπιστήμονι ἔοικεν· τὸ πρέπον γὰρ δύναται θεωρῆσαι καὶ δαπανῆσαι μεγάλα ἐμμελῶς.*
ARISTOTLE, *Ethics*, Bk. iv. cap. 2, § 5.

(11) *οὐ καλῶς δ' ἐοίκασι λέγειν οὐδ' εἶναι κίνησιν. πάσῃ γὰρ οἰκεῖον εἶναι δοκεῖ τάχος καὶ βραδυτής, καὶ εἰ μὴ καθ' αὑτήν, οἷον τῇ τοῦ κόσμου, πρὸς ἄλλο· τῇ δ' ἡδονῇ τούτων οὐδέτερον ὑπάρχει. ἡσθῆναι μὲν γὰρ ἔστι ταχέως ὥσπερ ὀργισθῆναι, ἥδεσθαι δ' οὔ, οὐδὲ πρὸς ἕτερον, βαδίζειν δὲ καὶ αὔξεσθαι καὶ πάντα τὰ τοιαῦτα.*
ARISTOTLE, *Ethics*, Bk. x. cap. 3, § 4.

(12) *καὶ τῇ Κλέωνος εὐχερείᾳ καὶ βωμολοχίᾳ πρὸς ἡδονὴν μεταχειριζομένῃ τοὺς Ἀθηναίους διὰ τῶν ὁμοίων ἀντιπαρεξάγειν ἀπίθανος*

ὧν, χορηγίαις ἀνελάμβανε καὶ γυμνασιαρχίαις ἑτέραις τε τοιαύταις φιλοτιμίαις τὸν δῆμον, ὑπερβαλλόμενος πολυτελείᾳ καὶ χάριτι τοὺς πρὸ ἑαυτοῦ καὶ καθ' ἑαυτὸν ἅπαντας.

PLUTARCH, *Nicias*, ch. iii. § 2.

(13) τούτοις δ' ὅτι μὲν πολὺ τὸ πρὸς δόξαν καὶ φιλοτιμίαν παρηγορικὸν καὶ ἀγοραῖον ἔνεστιν, οὐκ ἄδηλον, ἀλλὰ τῷ λοιπῷ τρόπῳ τοῦ ἀνδρὸς καὶ ἤθει πιστεύσειεν ἂν τις εὐσεβείας ἐπακολούθημα τὴν τοιαύτην χάριν καὶ δημαγωγίαν ἔσεσθαι.

PLUTARCH, *Nicias*, ch. iv. § 1.

(14) ἀθρόαις γὰρ ἐμίχοντο ταῖς ναυσὶ καὶ βαρείαις πρὸς κούφας ἀλλαχόθεν ἄλλας ἐπιφερομένας, καὶ βαλλόμενοι λίθοις ὁμοίαν ἔχουσι τὴν πληγὴν πανταχόθεν ἀντέβαλλον ἀκοντίοις καὶ τοξεύμασιν, ὧν ὁ σάλος τὴν εὐστοχίαν διέστρεφεν, ὥστε μὴ πάντα κατ' αἰχμὴν προσφέρεσθαι. PLUTARCH, *Nicias*, ch. xxv. § 2.

IV. Answer any *two* of the following questions:—

1. What is meant by the 'Epic Cycle,' and what is its relation to the Homeric poems?

2. Analyse the structure of a Pindaric ode, and compare it with that of the tragic chorus.

Or,

Compare the Doric of Pindar with the Doric of Attic Tragedy, or with the Doric of Theocritus.

3. Summarise Aristotle's remarks on the Method of Ethics.

4. Quote Aristotle's definition of Virtue, and show how its several constituents are determined.

6. Illustrate the differences between Thucydides and Plutarch in the delineation of character, with special reference to Plutarch's Lives of *Pericles* and *Nicias*.

V. Answer any *two* of the following questions:—

1. Discuss the part played by the various Bœotian States in the Persian and Peloponnesian Wars.

2. What safeguards against revolution did the Athenian Constitution provide at different periods?

3. What do you know of the powers and procedure of the Athenian *βουλή*?

4. "If the Greeks had honestly thrown in their lot with Philip and Alexander in the spirit of Isocrates, they would have reaped the advantage of the victory over Asia without the disadvantage of Macedonian rule over Greece."—(Holm.) Briefly examine this view.

5. What communistic regulations existed in some of the states of Greece?

CLASSICAL ARCHÆOLOGY.—(Optional Subject.)

FIRST PAPER.

Friday, 2*nd April* 1897.—9 *to* 12 *o'clock.*

1. Describe, with a sketch plan, the topography of Mycenæ.

2. What do you know of the state of the Acropolis of Athens in 480 B.C.?

3. Make a sketch of the Ionic capital and the (Attic) Ionic base, and indicate the probable origin and the artistic use of the various parts.

4. Distinguish between the various kinds of "Cyclopean" masonry, and describe a piece of Greek "Isodomon" masonry, such as is found in the cella walls of a temple of the best period.

5. Translate and comment on the following passages:—

(*a*) Ἴκαρε, κηρὸς μέν σε διώλεσε· νῦν δέ σε κηρῷ
ἤγαγεν εἰς μορφὴν αὖθις ὁ χαλκοτύπος.

(*b*) ὑπὲρ οὗ τὸν Πολύκλειτον οἰόμεθα λέγειν, ὡς ἔστι χαλεπώτατον αὐτῶν τὸ ἔργον, οἷς ἂν εἰς ὄνυχα ὁ πηλὸς ἀφίκηται.

(*c*) χάλκειος τ' ἔστην χεύας περὶ ποσσὶ μόλυβδοι,
εὐδοκίμους ἀρετῆς ἀντιλαβὼν χάριτας.

6. Criticise the Dædalus legend.

7. Write a note on the early Chian school of sculptors and their works.

8. Give a description of the principal forms of dress (not armour) worn by the male and female figures on the frieze of the Parthenon.

9. Describe the character of "Mycenæan" pottery, with respect to material, form, and manner of representing natural objects.

10. What do you know of the works of Clitias, Amasis, Hieron, and Brygos?

11. Define the position of vase decoration in the general history of early Greek painting.

12. Discuss the style, date, and interpretation of the vase painting set before you.

SECOND PAPER—*First Part.*

FRIDAY, 2*nd April* 1897.—2 *to* 3 *o'clock.*

Write an Essay upon the value, (*a*) direct and (*b*) indirect, of Greek coins to the student of classical art, noting under (*a*) the points of artistic interest involved in the choice, placing, and treatment of the various devices, under (*b*) the representation on coins of lost works of sculpture. Refer to examples.

(*An hour is allowed for the Essay.*)

SECOND PAPER—*Second Part.*

FRIDAY, 2*nd April* 1897.—3 *to* 5 *o'clock.*

1. Give an account of the athletic figures of Pythagoras of Rhegium and Myron, and quote any passages from ancient authors bearing on their characteristics.

2. Discuss the style and interpretation of the Metopes of the Parthenon.

3. What do you know of the Lemnian Athene of Pheidias?

4. What interpretation of the central group of the East Frieze of the Parthenon do you favour, and on what arguments do you chiefly rely?

5. Describe the composition and style of the West Pediment of the Temple of Zeus at Olympia, and discuss the authorship of it.

6. Define the position in the history of Greek art of the Venus of Milo, the Laocoon group, the Belvedere Apollo, the Demeter from Cnidus and the "Dying Gladiator."

Comment on the following passages:—

7. *ὁ γὰρ χαρακτὴρ ἐτέθη τοῦ ποσοῦ σημεῖον.*

ARIST. *Pol.* i. 3, 14.

"Hence the religious character of all early coin-types."

HEAD. *Hist. Num.* lvi.

8. *καὶ μὴν Ἀναξίλας ὁ Ῥηγῖνος οὔσης, ὡς Ἀριστοτέλης φησίν, τῆς Σικελίας τέως ἀγόνου λαγῶν, ὁ δὲ ἐσαγαγών τε καὶ θρέψας, ὁμοῦ δὲ καὶ Ὀλύμπια νικήσας ἀπήνῃ, τῷ νομίσματι τῶν Ῥηγίνων ἐνετύπωσεν ἀπήνην καὶ λαγών.—Pollux* v. 75.

9. *οὐ γὰρ ἀξιώσει τις ἡμᾶς ἐν τῷ παρόντι πολυπραγμονεῖν, εἰ Μιτυληναῖοι μὲν Σαπφὼ τῷ νομίσματι ἐνεχαράξαντο, Χῖοι δὲ Ὅμηρον, Ἰασεῖς δὲ παῖδα δελφῖνι ἐποχούμενον, Δαρδανεῖς δὲ ἀλεκτρύονων μάχην, Ἀσπένδιοι δὲ παλαιστάς, καὶ Ῥηγῖνοι μὲν λαγών. Κεφαλλῆνες δὲ ἵππον, Θάσιοι δὲ Πέρσην, Ἀργεῖοι δὲ μῦν.*

Pollux ix. 84.

10. Write brief notes on the following coin-types:—

Autotype plates—I. *a.* 7; *c.* 25; II. *c.* 32; *c.* 33; III. *b.* 37; *c.* 44; V. *b.* 27; *c.* 23; VI. *a.* 19; VII. *a.* 2

ANCIENT PHILOSOPHY.—(Optional Subject.)

Later Period.

Friday, *2nd April* 1897.—9 *to* 12 *o'clock.*

1. What is meant by "Platonic Division"?

2. What answer is given by Aristotle in the *De Anima* to the question whether soul has an ἴδιον πάθος?

3. How, according to Aristotle, is φαντασία related to αἴσθησις?

4. "Eudaemonism breaks down at the point where Curtius leaps into the gulf." Does Aristotle's treatment of *Courage* bear out this criticism?

5. Translate and explain:—

(*a*) πρῶτον μὲν τοίνυν ἄπειρον λέγω, δεύτερον δὲ πέρας, ἔπειτ' ἐκ τούτων τρίτον μικτὴν καὶ γεγενημένην οὐσίαν· τὴν δὲ τῆς μίξεως αἰτίαν καὶ γενέσεως τετάρτην λέγων ἆρα μὴ πλημμελοίην ἄν τι;

(*b*) πάλιν δὲ ἁρμοττομένης τε καὶ εἰς τὴν αὑτῆς φύσιν ἀπιούσης ἡδονὴν γίγνεσθαι λεκτέον, εἰ δεῖ δι' ὀλίγων περὶ μεγίστων ὅ τι τάχιστα ῥηθῆναι.

(*c*) τοῦτο δὲ τὸ τί ἦν εἶναι τῷ τοιῳδὶ σώματι, καθάπερ εἴ τι τῶν ὀργάνων φυσικὸν ἦν σῶμα, οἷον πέλεκυς· ἦν μὲν γὰρ ἂν τὸ πελέκει εἶναι ἡ οὐσία αὐτοῦ, καὶ ἡ ψυχὴ τοῦτο.

(*d*) ἆρ' οὖν ἅμα μὲν καὶ ἀριθμῷ ἀδιαίρετον καὶ ἀχώριστον τὸ κρῖνον, τῷ εἶναι δὲ κεχωρισμένον; ἔστι δή πως ὡς τὸ διαιρετὸν τῶν διῃρημένων αἰσθάνεται, ἔστι δ' ὡς ᾗ ἀδιαίρετον· τῷ εἶναι μὲν γὰρ διαιρετόν, τόπῳ δὲ καὶ ἀριθμῷ ἀδιαίρετον.

(*e*) ἐν παντὶ δὴ συνεχεῖ καὶ διαιρετῷ ἔστι λαβεῖν τὸ μὲν πλεῖον τὸ δ' ἔλαττον τὸ δ' ἴσον, καὶ ταῦτα ἢ κατ' αὐτὸ τὸ πρᾶγμα ἢ πρὸς ἡμᾶς. τὸ δ' ἴσον μέσον τι ὑπερβολῆς καὶ ἐλλείψεως.

(*f*) γίνεσθαι δ' ἀγαθοὺς οἴονται, οἱ μὲν φύσει, οἱ δ' ἔθει, οἱ δὲ διδαχῇ.

Earlier Period.

Friday, *2nd April* 1897.—9 *to* 12 *o'clock.*

1. Give a short account of the development of the Milesian School.

2. Can Socrates be fairly called a Utilitarian?

3. *εὖ γὰρ καὶ Πλάτων ἠπόρει τοῦτο καὶ ἐζήτει, πότερον ἀπὸ τῶν ἀρχῶν ἢ ἐπὶ τὰς ἀρχάς ἐστιν ἡ ὁδός.*

What is Plato's conception of Scientific Method?

4. What can be learned from the *Theaetetus* about the doctrines of Plato's predecessors and contemporaries?

5. Translate and explain:—

(*a*) *δίπλ' ἐρέω· τοτὲ μὲν γὰρ ἓν ηὐξήθη μόνον εἶναι*
ἐκ πλεόνων, τοτὲ δ' αὖ διέφυ πλέον' ἐξ ἑνὸς εἶναι.
δοιὴ δὲ θνητῶν γένεσις, δοιὴ δ' ἀπόλειψις.

(*b*) *τούτων δὲ οὕτως ἐχόντων χρὴ δοκεῖν ἐνεῖναι πολλά τε καὶ παντοῖα ἐν πᾶσι τοῖσι συγκρινομένοισι, καὶ σπέρματα πάντων χρημάτων καὶ ἰδέας παντοίας ἔχοντα καὶ χροιὰς καὶ ἡδονάς.*

(*c*) *νόμῳ γλυκὺ καὶ νόμῳ πικρόν, νόμῳ θερμόν, νόμῳ ψυχρόν, νόμῳ χροιή· ἐτεῇ δὲ ἄτομα καὶ κενόν.*

(*d*) *εἰ δύο μόνας [κλίνας] ποιήσειε [ὁ θεός], πάλιν ἂν μία ἀναφανείη, ἧς ἐκεῖναι ἂν αὖ τὸ εἶδος ἔχοιεν, καὶ εἴη ἂν ὃ ἔστι κλίνη, ἀλλ' οὐχ αἱ δύο.*

(*e*) *ἀλλὰ μὰ Δία, ὦ Σώκρατες, ἔγωγε οὐκ ἂν ἔχοιμι εἰπεῖν, πλήν γ' ὅτι μοι δοκεῖ τὴν ἀρχὴν οὐδ' εἶναι τοιοῦτον οὐδὲν τούτοις ὄργανον ἴδιον ὥσπερ ἐκείνοις, ἀλλ' αὐτὴ δι' αὑτῆς ἡ ψυχὴ τὰ κοινά μοι φαίνεται περὶ πάντων ἐπισκοπεῖν.*

(*f*) *βούλει οὖν λέγωμεν ὅτι τῶν μὲν ὀνομάτων οὐδὲν ἡμῖν μέλει, ὅπῃ τις χαίρει ἕλκων τὸ ἐπίστασθαι καὶ μανθάνειν, ἐπειδὴ δὲ ὡρισάμεθα ἕτερον μέν τι τὸ κεκτῆσθαι τὴν ἐπιστήμην, ἕτερον δὲ τὸ ἔχειν, ὃ μέν τις κέκτηται μὴ κεκτῆσθαι ἀδύνατόν φαμεν εἶναι, ὥστε οὐδέποτε συμβαίνει ὅ τις οἶδε μὴ εἰδέναι, ψευδῆ μέντοι δόξαν οἷόν τ' εἶναι περὶ αὐτοῦ λαβεῖν;*

COMPARATIVE PHILOLOGY.—(Optional Subject.)

FRIDAY, *2nd April* 1897.—2 *to* 5 P.M.

EIGHT *of the following questions to be answered.*

1. What are the chief points of difference between the Indo-Germanic and other stocks of speech?

2. What grounds are there for the assumption of a closer connection between Italic and Keltic speech? and how does Greek stand towards them in this respect?

3. Discuss the view of modern philologists as to phonetic change being regulated by laws which have no exceptions. How are apparent irregularities in this respect accounted for?

4. What do you understand by *vowel-gradation*, and what by Verner's Law? Illustrate your definition by examples.

5. State briefly the characteristic features of the chief Greek and Italic dialects.

6. Discuss the accentuation of Greek monosyllabic nouns in the different cases.

7. Examine the formation of the Latin present subjunctive of the several conjugations, and of the substantive verb *esse*.

8. Explain the difference of formation in the optative of verbs in -ω and in -μι (λέγοιμι—τιθείην).

9. Explain the formation of the Greek and Latin infinitives.

10. Show by examples what different original sounds the Greek *Spiritus asper* may represent.

11. Analyse and explain briefly the formation of fifteen of the following words, giving cognates where you can:—κύκλος, *vixisti*, τέως, χθών (χθόνα), χαμαί, πατρίσι, *accelerāmini*, θέραξ, Ζῆν, τῶν, νεφέλαι, εἰσί, κέαται, *cōventiōnīd*, καλῶς, μείζω, *tibi*, πότνια, *trans*, *forās*, ἔειπον.

12. Give etymology and cognates of the following words:—
ἕπομαι, posco, ἔτος, ζητέω, gravis, mollis, lacruma, fides, linquit, θερμός, μήν, θείνω, lĕvis, βαίνω, μία.

II.—MENTAL PHILOSOPHY.

LOGIC AND METAPHYSICS.

FIRST PAPER.

MONDAY, 29*th March* 1897.—9 *to* 12 *o'clock.*

1. Explain the logical significance of the problem as to the import of Existential Judgments.

2. What are the logical aspects of Negation? How is it related to Affirmation and to objective fact?

3. Discuss the various theories of Modality, and their metaphysical presuppositions.

4. How far is it a valid distinction of Induction from Deduction that the former can give merely problematical conclusions, the latter both assertoric and apodeictic? Contrast the views of Aristotle and Mill in this connection.

5. "All our conclusions concerning the real world rest upon the immediate confidence or the *faith* which we repose in the universal validity of a certain postulate of thought, which oversteps the limits of the special world of thought."—(LOTZE.) Discuss.

6. Give a *psychological* analysis of Judgment, and indicate its relation to the simpler processes out of which it may be evolved.

SECOND PAPER.

MONDAY, 29*th March* 1897.—2 *to* 5 *o'clock.*

1. Discuss the possibility of a science of Psychology, which shall be independent of all metaphysical theory. How far is this

condition realised by the Experimental Psychology of the present day?

2. (*a*) "We may not, I think, strictly be said to have an *idea* of an active being, or of an action, though we may be said to have a *notion* of them."—BERKELEY.

(*b*) "The Ego is no notion, through which anything is thought, but nothing more than a feeling of existence without the shadow of a concept,—only the idea of that to which everything stands related."—KANT.

(*c*) "The passing thought is the only thinker."—JAMES. Discuss the nature of the self, and the nature of our knowledge of it.

3. "Belief is more properly an act of the sensitive than of the cogitative part of our nature."—HUME. Consider, historically and critically, the controversy as to the nature of Belief.

4. Define and consider the positions of Locke, Hume, and Kant in regard to the foundation and method of Geometrical Reasoning.

5. Carefully investigate the function ascribed by Kant to the Ideas of Reason, and compare the statements of his position in the three *Critiques*.

THIRD PAPER.

TUESDAY, 30*th March* 1897.—9 *to* 12 *o'clock.*

1. Estimate the value of Plato's distinction between Opinion and Knowledge, (*a*) in its epistemological, (*b*) in its historical significance. Point out any differences in this connection between the treatment of the Republic and that of the Theætetus.

2. Discuss Aristotle's Theory of Perception, and consider its relation to the corresponding doctrines of Plato.

3. It has been said of Spinoza that "the method he adopts and the conception on which it is based furnish the key to the

meaning of his ideas and the explanation of the errors into which he is betrayed." Explain and comment on this statement.

4. How far is Hegel's system fairly described as "Panlogismus"? Discuss with some fulness the relation of thought to reality in the system.

5. Give a careful statement of Lotze's metaphysical position as contained in the First Book of his "Metaphysics," and add some indication of the place he holds in the history of German thought.

MORAL PHILOSOPHY.

FIRST PAPER.

TUESDAY, 30*th March* 1897.—2 *to* 5 *o'clock.*

1. Consider how far Plato's treatment of ethical problems was affected by his psychological standpoint, and whether any advance in Aristotle may be explained by an improved Psychology.

2. Discuss the origin and growth of Mysticism in Greek Philosophy, with special reference to Plato, Aristotle, and Plotinus.

3. Explain, and discuss in its historical setting, Spinoza's application of the conceptions of Necessity and Freedom to the Divine and to the Human Life.

4. With what truth may it be said that the outstanding features of Hegel's view of Morality represent a consistent development of the Kantian theory?

5. Explain the significance of the problem as to whether moral goodness may enter as a constituent element into "the life in which ultimate good is actually attained." Illustrate by reference to the views of Green Spencer, and Bradley.

SECOND PAPER.

WEDNESDAY, 31*st March* 1897.—9 *to* 12 *o'clock.*

1. "Reason is, by an inner necessity, at war with the appetites and desires of our lower nature."

'Reason is, and only ought to be, the slave of the passions." Examine these views as to the significance of Reason, and its function in Morality.

2. Consider, generally, the principles underlying the conception of "Ideal Justice," with reference to the views of Spencer and Sidgwick.

3. "The paradox of Hedonism." Explain, and discuss (*a*) the psychological explanations that have been offered, (*b*) its consistency with Hedonism in general. May the paradox be referred to a more fundamental paradox, in the nature of morality itself?

4. Investigate the conditions of a positive science of Sociology. How far may the possibility of such a science be reconciled with moral responsibility, and with moral progress of the Individual.

5. State, and examine the validity of, the "teleological argument."

THIRD PAPER.

WEDNESDAY, 31*st March* 1897.—2 *to* 5 *o'clock.*

Write an Essay on

The Ethical Conceptions involved in Punishment.

III.—MATHEMATICS AND NATURAL PHILOSOPHY.

MATHEMATICS.

FIRST PAPER.

MONDAY, 29*th March* 1897.—9 *to* 12.

1. Shew that two homogeneous quadratic functions of 3 variables may be, by the same linear transformation, reduced to sums of squares.

What interpretation in geometry has this proposition?

2. Work out the general analytical theory of the diameters and centre of curves of the second degree.

AB and CD are parallel chords of a conic $ABDC$; AC and BD meet in O, and the tangents at A and D meet in Q. Shew that OQ is parallel to the chords.

3. Give a rigorous demonstration of the expansion of $\sin\theta$ in powers of θ, assigning an upper limit for the residue after n terms of the series.

The following method is sometimes given for inscribing a regular n-gon in a circle:—On a diameter AB cut off $BD=\frac{2}{n}AB$; on AB describe an equilateral triangle ABC; and let CD produced cut the circle in E; then BE is said to be one side of the n-gon. In the case $n=1000$ determine approximately the percentage of error.

4. Write down the invariants of a system of two conics; and shew that if one triangle may be drawn inscribed in one of the conics and circumscribed to the other, an infinite number may be so drawn.

Two circles stand in this relation, and the centre of one lies on the circumference of the other. Determine the ratio of their radii.

5. Shew how to find and to discriminate between the maxima

and minima of a function of n variables connected by $n-1$ given relations.

Determine (1) the rectangular box, (2) the cylindrical box, of maximum content, subject to the condition that length and girth combined shall not exceed 6 feet.

6. Trace the curves $y=\frac{(x-2)^3}{(x-3)^2}$, $y=\frac{(x-3)^2}{(x-2)^3}$; determine the tangents to each parallel to the x-axis, and find all their intersections with the curve.

7. Shew that all tangents to a circle cut four fixed tangents in the same cross ratio; and deduce the corresponding theorem for any conic.

If a transversal cut four fixed tangents to a circle in a constant cross ratio, shew that it envelops a conic; and find for what value of the cross ratio the envelope is the given circle.

8. Express (1) the volume, and (2) the length of a diagonal, of a parallelepiped in terms of the edges and their inclinations.

Evaluate

$$\int_{-x}^{x}\int_{-x}^{x}\int_{-x}^{x} dx\,dy\,dz\, \exp(-x^2-y^2-z^2-2yz\cos\alpha-2zx\cos\beta-2xy\cos\gamma).$$

Also shew that, if p is a positive integer and q and r are rational, the integral $\int x^{pq-1}(m+nx^q)^r\,dx$ is an algebraic function of x.

9. Write down the various forms to be considered in the integration (in real form) of a rational fractional expression, and the various kinds of integrals hence arising.

Integrate $\int dx(1-x^2)^{-\frac{1}{2}}$.

Differentiate $\log\frac{1+2y+2y^2}{1-2y+2y^2}+2\tan^{-1}\frac{2y}{1-2y^2}$

Find $\frac{d}{dx}\cosh^{-1}\left(\frac{d}{dx}\cosh^{-1}\sec x\right)$.

10. Find the differential equation to a line of curvature on a given surface.

Find one line of curvature on the surface

$$z=\tfrac{1}{2}(ax^2+by^2)+\tfrac{1}{6}(Ax^3+3Bx^2y+3Cxy^2+Dy^3)+\ \ldots$$

in the form

$$y=px+p'x^2+p''x^3\ \ldots,\ z=qx+q'x^2+q''x^3\ \ldots$$

to the third degree in x.

11. Shew that if $\sin^{-1}y=a\sin^{-1}x$, then

$$(1-x^2)\frac{d^2y}{dx^2}-x\frac{dy}{dx}+a^2y=0$$

and find the complete primitive of this differential equation.

12. Shew how to reduce a linear differential equation of the second order to its normal form. If two equations have the same normal form what is the relation between their integrals?

Solve the equation

$$x^3\frac{d^3y}{dx^3}-x^2\frac{d^2y}{dx^2}+(x^3-2x)\frac{dy}{dx}+(x^2+6)y=0$$

observing that it is satisfied by $y=1/x$.

SECOND PAPER.

MONDAY, 29*th March* 1897.—2 *to* 5.

1. Prove the theorem regarding the connection between the minors of a determinant and the minors of its reciprocal.

Evaluate the determinant

$$\begin{matrix} 1/(a^2-\lambda), & 1/(b^2-\lambda), & 1/(c^2-\lambda) \\ 1/(a^2-\mu), & 1/(b^2-\mu), & 1/(c^2-\mu) \\ 1/(a^2-\nu), & 1/(b^2-\nu), & 1/(c^2-\nu). \end{matrix}$$

2. Define the pedals of a given curve; and shew that the tangents at corresponding points on Pedals are equally inclined to their corresponding radii vectores.

Shew that the pedal and evolute of an equiangular spiral are equiangular spirals. Considering the pedals as traced kine-

matically by the motion of the vertex of a right angle, one of whose arms touches the spiral and the other passes through its pole, shew that the space centrodes of the pedals of an equiangular spiral are also equiangular spirals.

3. Give a short general account of the methods for approximating to the form of an algebraic curve at infinity.

Construct the equation to a circular cubic which has $x+y-1$ for its real asymptote, and has a double point at the origin, the tangents at which are $x=0$, $y-x=0$. Trace the curve.

4. If $(abcfgh)(xy1)^2=0$ represent an ellipse, find an expression for its area.

Hence find the locus of the centres of the plane sections which cut off a given volume from a given quadric cone.

5. Evaluate $\int_0^\infty dx \frac{\sin x}{x}$:

and also $\int_0^\infty dx\{e^{-x}+e^{-x}/x-1/x\}/x$.

6. Sketch the process for evaluating $\int dx\ (a+b\cos x+c\sin x)$.

Work out the value of $\int_0^{\frac{\pi}{2}} d\theta\,(a-\sin 2\theta)$ where $a>+1$: and apply your result to evaluate $\int_0^{\frac{\pi}{2}} d\theta \sin\theta\cos\theta\,(1+\sin\theta\cos\theta-\sin^2\theta\cos^2\theta)$, and $\int_0^{\frac{\pi}{2}} d\theta \cos^2\theta\sin\theta\,(\cos^3\theta+\sin^3\theta)$.

7. Find the angle between the directions (l) and (λ), and apply your result to find the angle between the directions given by $pl+qm+rn=0$ (i), $al^2+\beta m^2+\gamma n^2=0$ (ii).

Shew that the cones $\Sigma x^3=3axyz$, where a is an arbitrary constant cut the plane $x+y+z=0$ in the same three lines, and that these lines are equally inclined to each other.

8. Shew, synthetically or analytically, that the lines joining corresponding points on two lines divided homographically generate a quadric.

A line in space receives an infinitesimal change of position. Shew that the trajectories of its points generate a hyperbolic paraboloid.

P and Q are the points in which any generator of the opposite system cut two fixed generators of a hyperbolic paraboloid. Shew that the plane bisecting PQ at right angles envelopes a parabolic cylinder.

9. Prove for any linear transformation from one set of Cartesian axes to another that $\{\Sigma a(1-\lambda^2)+2\Sigma(\mu\nu-\lambda)f\}/(1-\Sigma\lambda^2+2\lambda\mu\nu)$, $\{\Sigma(bc-f^2)+2\Sigma\lambda(gh-af)\}/(1-\Sigma\lambda^2+2\lambda\mu\nu)$, and $\{abc+2fgh-\Sigma af^2\}/(1-\Sigma\lambda^2+2\lambda\mu\nu)$ are absolute invariants, where a, b, c, etc. are the coefficients of the quadric function $(abcfghijk)(xyz1)^2$, and λ, μ, ν are the cosines of the angles between the axes.

If the quadric $ax^2+by^2+cz^2-1=0$ (rectangular axes) be referred to a pair of perpendicular generators, and the normal at their intersection as axes, find the form of its equation and calculate the constants in this equation in terms of a, b, c.

10. Find the condition that the origin be a tac point of the integral curves of the differential equation $A_np^n+A_{n-1}p^{n-1}+\ldots+A_1p+A_0=0$, where $A_0, \ldots, A_n$ are functions of x and y which are synectic at the origin.

Prove that at every point on a tac-locus of $Lp^2+Mp+N=0$ the following conditions must be satisfied: $M^2-4NL=0$, $\Sigma L\delta(M, N)\delta(x, y)=0$, $\{\delta(N, L)\delta(x, y)\}^2=\{\delta(M, N)/\delta(x, y)\}\times\{\delta(L, M)/\delta(x, y)\}$.

11. Give Jacobi's theory of the solution of the linear homogeneous partial differential equation $P_1\delta z/\delta x_1+\ldots+P_n\delta z/\delta x_n=0$, where $P_1, \ldots, P_n$ are functions of $x_1, \ldots, x_n$, but not of z.

Solve the equation

$$x(x^2-2y^2)\delta z/\delta x+y(2x^2-y^2)\delta z/\delta y=2z(x^2-y^2);$$

and find the equation to the integral surface which contains the curve $z=0$, $x^2+y^2=1$. Is this the whole of the intersection of the integral surface with the plane $z=0$?

12. Deduce Cauchy's conditions for the existence of a singular solution of the partial differential equation $\phi(x, y, z, p, q)=0$: and shew that under certain circumstances there may be a onefold infinity of singular solutions.

Solve the equation $z=(a^2+2p+4q^2)x+2(p+1)qy$.

13. If k be a positive quantity, so small that its square may be neglected, solve the differential equation $\delta^2 y'\delta t^2+2k\delta y'\delta t=a^2\delta^2 y'\delta x^2$ under the following conditions: when $t=0$, $y=x(l-x)^2 b$, and $\delta y'\delta t=0$ for all values of x from $x=0$ to $x=l$; and also $y=0$ when $x=0$, and when $x=l$ for all values of t.

THIRD PAPER.

TUESDAY, 30*th March* 1897.—9 *to* 12.

Write Essays on not more than *two* of the following subjects:—

1. The foci and directrices of a quadric of revolution.

2. Complexes, in particular, the linear complex.

3. The convergence of a series whose terms are all positive.

4. The solution of systems of ordinary linear differential equations with constant coefficients.

5. The integral curves of the differential equation $f(p, x, y)=0$, considered as plotted directly from the differential equation

6. Fourier's series.

NATURAL PHILOSOPHY.

FIRST PAPER.

TUESDAY, 30*th March* 1897.—2 *to* 5 P.M.

1. Form and integrate the two forms of the equation of motion of a body moving vertically in still air, the resistance of

the air being directly as the square of the speed. A body, for which the terminal speed is 160 feet per second, is projected upwards and attains a height of 800 feet. Calculate the initial speed and the final speed of return to the point of projection, and give an estimate of the time taken to make the ascent and descent.

2. Discuss the motion of a particle projected horizontally along the inside surface of a paraboloid of revolution (vertex down). Compare this case with that of a particle in a smooth parabolic tube which by its revolution with constant angular velocity describes an equal and similarly situated paraboloid. Is an oscillatory motion of the particle possible in the latter case?

3. A point of a body moves in a given manner in a given plane curve, while the body rotates in the same plane with a given angular speed. Show that there is at every instant an instantaneous centre of rotation which describes definite curves in space and in the body. Work out these curves for a body falling with constant acceleration and rotating about a horizontal axis with constant angular speed.

4. A body is subject to three equal rotations about two mutually perpendicular sides and a diagonal of a cube, no two of which meet each other. Find the resultant screw motion.

5. Six freely jointed rods of equal length hang as a funicular pendulum, so that the joints lie on a semi-circle. Compare their weights and find the stresses at the joints. If the rods are to be of equal weight, show how to find their lengths so that the figure (assumed symmetrical) may still be inscribed in the semi-circle.

6. Investigate the conditions of equilibrium under the action of given forces of a flexible cord with two points fixed. Find the law of density so that a cord may hang under gravity in the form of a cycloid.

7. What are the principal moments of inertia of a body about a given point? Prove their existence and properties. Find

the principal axes and moments of inertia of a right cylinder about a point in one of its rims.

8. Two equal rods are joined together to form a bilaterally symmetrical cross. The system is set in oscillation in the plane of the cross about a given point in the axis of symmetry. Find the position of the cross-piece for which the period of small oscillations is a minimum.

9. Find the gravitation attraction of a finite right cylindrical tube upon a particle in its axis. Hence deduce the period of small oscillations of a particle along the axis and about the middle point.

10. Find the equi-potential surfaces due to a magnetic molecule (*i.e.* two centres of force of equal intensity but opposite signs placed infinitely near to one another, the force varying inversely as the square of the distance). Find also the mutual potential energy of two magnetic molecules, whose magnetic moments are given in direction and magnitude.

11. Investigate the small transverse vibrations of a stretched string with fixed ends, the initial displacements being zero, and the initial velocities expressed by the equation $\dot{y}=\mu x(l-x)$, where l is the length of the string, and μ a constant.

12. Apply the method of electric images to calculate the capacity of a conductor formed of two spherical segments meeting at an angle of 90°. Compare the densities at the ends of the axis of symmetry.

SECOND PAPER.

WEDNESDAY, 31*st March* 1897.—9 *to* 12 *o'clock.*

1. Find expressions for the acceleration of a point along and perpendicular to the radius vector from a fixed point. Deduce the differential equation of the orbit of a body moving under a

central force, and show how the equation may be integrated when the central force is a function of the distance only.

Determine the law of force under which a body can describe a circle about a centre of force in the circumference.

2. One particle lies on a rough table. Another equal particle is tied to it by a straight horizontal string perpendicular to the edge of the table, and let fall. Show that if the coefficient of friction is less than 3, the particle on the table will slip. This particle being supposed to slip, find an equation giving the angular motion of the other about the edge of the table.

3. A cone of semivertical angle β, stands on a smooth plane inclined at an angle α, being held there by a horizontal force applied at the apex. Within what limits must β lie?

If the plane were rough, and the cone standing free would be on the point of slipping; and if the force were applied as before, and increased till the cone moved, would the cone slide or upset? Assume α and β to be both less than 45°.

4. A cask is being lowered by means of an inclined plane. A rope is fast to it, wrapped round it, and controlled so as to limit the rolling by a man standing on the plane. The cask slips on the plane and the man holds firm. Find equations to determine the subsequent motion of the cask.

5. A tennis ball is struck horizontally with an undercut, the effect of which is to produce an acceleration proportional to e^{-t^T} perpendicular to the direction of motion. Initially the curvature of the path is zero. Expand the coordinates of the ball in terms of t to the fifth power.

6. A perfectly rough uniform sphere rolls from rest down an inclined plane. It rolls off and immediately strikes a peg and comes to rest. Show that during the motion the acceleration of the centre is constant, and determine the position of the peg.

7. Suppose all the earth, except one particle on the equator

suddenly condensed at the centre. Find the axes of the orbit of this particle round the earth.

8. Find an expression for the potential of an extended mass at any point.

Find the potential of a uniform ellipsoid at an internal point.

9. A cylindrical bucket contains water and is made to spin round its axis. Find the consequent changes of pressure at the edge and centre of the bottom, and show that the total pressure on the bottom is not affected unless the water spills.

10. Prove Thomson's Theorem that if a system be set in motion by impulses acting at points whose motion is specified, the system moves off with less kinetic energy when otherwise free than if subjected in addition to smooth fixed constraints.

A mass of water contains a sphere and is enclosed in a massless envelope. This envelope has one point jerked in a given direction with given speed. Show that the kinetic energy of the water is less when the sphere is free to move than when it is fixed.

11. State the conditions to be satisfied by an electric current flowing in a finite conductor between two points at which the poles of a battery are applied.

Find the equation of continuity for a steady flow in a uniform plane conductor: and show that if the poles of a battery are applied to two points on the circumference of a conducting disc, the lines of flow are circles.

12. Prove the property of the capillary curve, that the curvature is proportional to the height above the free surface.

If s is the distance measured along the curve from the lowest point, find an expansion to the 5th power in s for the inclination of the curve to the horizontal.

THIRD PAPER.

WEDNESDAY, 31*st March* 1897.—2 *to* 5 *o'clock.*

1. Find the coefficients of the strain which converts three conterminous edges of a cube into lines parallel and equal to the diagonals drawn from their other ends.

2. Find a characteristic property of the (generally tortuous) curve, down any arc of which a particle will slide from the origin in the same time as down its chord.

3. Form the equations for the small motions, in one plane, of a uniform chain suspended by one end.

How are they modified by the attachment, to the middle point of the chain, of a mass comparable with its own?

4. Form the equations of motion of an incompressible perfect liquid when there is a velocity-potential. Deduce from them the relation between the pressure and the kinetic energy per unit volume.

5. Form the equations, in generalized coordinates, for the motion of a straight rod, supported by a string attached at one of its ends.

Integrate them, for small disturbances in one plane.

6. Explain the steps of the process by which we arrive at an expression for the electric distribution on the surface of a finite conductor (1) insulated, (2) put to earth, by the influence of an external charged particle.

7. Form the general equations for the potential, and the current-function, in a uniform conducting plate; and point out the forms of elementary solutions.

8. Give Fourier's investigation of the cooling of a sphere, originally at uniform temperature throughout.

9. Find how the steady state of temperature, which gives a uniform stream of heat in an infinite solid, is modified in the

neighbourhood of a spherical portion which becomes a non-conductor.

10. Express the temperature-distribution at any time after the instantaneous, uniform, heating of a plane in an infinite solid.

11. Investigate an expression for the rise of temperature produced by sudden compression of a liquid:—and enumerate the experimental data required for the estimation, in foot pounds, of the heat developed per unit volume.

12. Define the Thermodynamic Motivity of a body or a system of bodies:—and show that when it is exhausted, by means of reversible engines, the final state is independent of the order in which the process has been carried out.

IV.—ENGLISH (Language, Literature, and British History).

ENGLISH.

FIRST PAPER.

FRIDAY, 26*th March* 1897.—9 *to* 12 *o'clock.*

(N.B.—*Not more than* NINE *Questions to be attempted.*)

1. Explain the *Katharsis* Theory in Aristotle's Definition of Tragedy.

2. What is Quintilian's teaching as to the laws of the Paragraph and of Prose Rhythm?

3. Summarise the teaching of Longinus as to Figures.

4. Write a history of Blank Verse as an English metrical form, and consider specially questions of structure.

5. Summarise Guest's history of alliterative metres.

6. Write the history of Italian influence upon English non-dramatic literature.

7. Sketch the course of Scottish poetry previous to Dunbar.

8. Give an account of the development and subjects of Literary Criticism in the Elizabethan period.

9. Discuss the place of Addison in the History of Style.

10. Relate the work of Wordsworth to that of his predecessors in the Eighteenth Century.

11. Give some account of Historical Literature from Clarendon to Gibbon.

12. Trace the history of periodicals on the *Spectator* model from the time of Addison to the end of the Eighteenth Century. Give notes as to chief contributors.

13. Write a comparison between Leigh Hunt and Hazlitt as Essayists.

14. Indicate wherein lie the main powers of Pater's treatment.

15. Trace "the personal note" of Stevenson's Essays in earlier writers.

16. Write studies of Thackeray and Arnold as Essayists, from the point of view of the contention, *Le style, c'est l'homme même.*

SECOND PAPER.

FRIDAY, 26*th March* 1897.—2 *to* 5 *o'clock.*

Write an Essay on *one* of the following subjects:—

1. Greek and English Ideals of Tragedy.
2. Canons of Present-Day Criticism.
3. The Interaction of Modern Literatures.

THIRD PAPER.

SATURDAY, 27*th March* 1897.—9 *to* 12 *o'clock.*

(N.B.—*Not more than* NINE *Questions to be attempted.*)

1. Trace the growth of Literary Criticism after the Restoration.

2. Show what literary and social circumstances aided the rise of the Periodical Essay under Addison and Steele.

3. Contrast the style of Clarendon with that of Hobbes.

4. Write an appreciation of Otway.

5. "Taylor, the Spenser of divines." Justify the comparison.

6. "The style of Congreve is inimitable, nay, perfect."—*Hazlitt.* Discuss the saying and consider the characteristics and origins of Congreve's Style.

7. Write notes on *eight* of the following:—Sir Thomas Urquhart, James Howell, Anthony à Wood, Charles Cotton, Thomas Rymer, John Selden, Tom d'Urfey, Henry Vaughan, Sir William Davenant, Sir Kenelm Digby.

8. Write the history of English Verse-Mechanism from Shakespeare to Pope.

9. Who were the "Metaphysical" poets? Discuss the origin of the manner.

10. Give some account of the history and varying meaning of the term "Essay." Is it solely modern?

11. Write a comparison between the methods of Bacon's *Essays* and of Jonson's *Discoveries.*

12. Sketch, by reference to the work of Overbury and Earle, the methods of the "Character" Essay. Trace the form in earlier and later times.

13. Trace the Evolution of the "Letter" Essay from Howell to Goldsmith, and consider the foreign influences affecting its movement.

14. How was the meaning of the term "Essay" varied as to its manner, range, and purposes, by the work of Cowley, Temple, and Dryden?

FOURTH PAPER.

SATURDAY, *27th March* 1897.—2 *to* 5 *o'clock.*

(N.B.—*Not more than* NINE *Questions to be attempted.*)

1. Show the power of Milton's use of the verse-paragraph in *Paradise Lost.*

2. Discuss the merits and faults of Milton as a prose writer. Illustrate from the prescribed books.

3. Compare Milton's *Tractate on Education* with Cowley's *Proposition for the Advancement of Experimental Philosophy.*

4. In what do you consider the excellences of Herrick's art to consist?

5. In the movement of English Poetry in the Seventeenth Century, account for and trace the results of the *Pindarique Ode* theory.

6. Select from the *Urn-Burial* such passages as seem to you to show eminently Sir Thomas Browne's power as an architect in words.

7. Discuss Marvell's use of the triplet in his *Satires*; *or*, Contrast his *Dialogue between Two Horses*, with similar forms.

8. Write a study of Butler's metre and rhymes.

9. What various influences contributed to the strength of Dryden's Prose?

10. Trace the hand of the author of *Hudibras* in the *Rehearsal.*

11. Show from *MacFlecknoe* the advance of Dryden's satire upon the work of previous satirists. Distinguish its special characteristics, and estimate the skill of its verse.

12. Discuss the place of *The Indian Emperor* in its kind, and show its exemplification of the views of the *Essay of Dramatic Poesy.*

13. Write a characterisation of Dryden as a man of letters.

FIFTH PAPER.

MONDAY, 29*th March* 1897.—9 *to* 12 *o'clock.*

1. (*a*) Translate, annotating the language :—

Unferð maþelode, Ecglāfes bearn,
þe æt fōtum sæt frēan Scyldinga,
onband beadu-rune (wæs him Bēowulfes sið,
mōdges mere-faran, micel æf-þunca,
forþon þe hē ne ūþe, þæt ænig ōðer man
æfre mærða þon mā middan-geardes
gehēdde under heofenum þonne he sylfa) ;
"Eart þū se Bēowulf, sē þe wið Brecan wunne
on sīdne sæ ymb sund flite,
ðær git for wlence wada cunnedon,
ond for dol-gilpe on dēop wæter
aldrum nēþdon ? Ne inc ænig mon,
ne lēof nē lāð, bēlēan mihte
sorh-fullne sīð, þā git on sund rēon ;
þær git ēagor-strēam earmum þehton,
mæton mere-strǣta, mundum brugdon,
glidon ofer gar-secg ; geofon ȳþum wēol,
wintrys wylm. Git on wæteres æht
scofon niht swuncon ; hē þē æt sunde oferflāt,
hæfde māre mægen. Þā hine on morgen-tīd
on Heaþo-Rǣmas holm up ætbær ;
ðonon hē gesōhte swǣsne ēðel,
lēof his lēodum lond Brondinga,
freoðo-burh fægere, þær hē folc āhte,
burh ond bēagas. Bēot eal wið þē
sunu Bēanstānes sōðe gelæste.
Ðonne wēne ic tō þē wyrsan geþingea,
ðēah þū heaðo-rǣsa gehwǣr dohte,
grimre gūðe, gif þū Grendles dearst

niht-longne fyrst nēan bīdan."
Bēowulf maþelode, bearn Ecgþēowes:
"Hwæt! þū worn fela, wine mīn Unferð,
bēore druncen ymb Brecan sprǣce,
sǣgdest from his siðe. Sōð ic talige,
þæt ic mere-strengo māran āhte,
earfeþo on ȳþum, ðonne ǣnig ōþer man.

(*b*) Write the history of the study of *Beowulf*, and give some account of the more plausible hypotheses as to the composition, date, and locality of the poem.

2. Translate, with annotations:—

(*a*) Hit gelamp gio ðætte ān hearpere wæs on ðǣre ðīode ðe Þracia hātte, sīo wæs on Crēca rīce; se hearpere wæs swīðe ungefrǣglīce good, ðæs nama wæs Orfeus; hē hæfde ān swīðe ēnlic wīf, sīo wæs hāten Eurydice. Þā ongonn mon scegan be ðām hearpere, þæt hē meahte hearpian þæt se wudu wagode, ond þā stānas hī styredon for þȳ swēge, ond wildu dīor ðǣr woldon tō irnan ond stondan, swilce hī tamu wǣren, swā stille, ðēah him men*n* oððe hundas wiþ ēoden, ðæt hī hī nā ne onscunedon. Þā sǣdon hī þǣt ðæs hearperes wīf sceolde ācwelan, ond hire sāwle mon sceolde lǣdan tō helle. Þā sceolde se hearpere weorðan swā sārig, þæt hē ne mihte ongemong ōðrum mannum bīon, ac tēah tō wuda, ond sæt on ðǣm muntum, ǣgðer ge dæges ge nihtes, wēop ond hearpode, ðæt ðā wudas bifodon, ond ðā ēa stōdon, ond nān heort ne onscunode nænne lēon, ne nān hara nǣnne hund, ne nān nēat nyste nǣnne andan ne nǣnne ege tō ōðrum, for ðǣre mergðe ðæs sōnes.

(*b*) Æfter ðan ðe Augustinus tō Engla-lande becōm, wæs sum æðele cyning, Ōswold gehāten, on Norðhymbra lande, gelȳfed swȳþe on God. Sē fērde on his iugoðe fram his frēondum and māgum tō Scotlande on sǽ, and þǣr sōna wearð gefullod, and his gefēran samod þe mid him sīþedon. Betwux þām wearð ofslagen Ēadwine his ēam, Norðhymbra cyningc, on Crīst gelȳ-

fed, fram Brytta cyninge, Ceadwalla gecīged, and twēgen his æftergengan binnan twām gēarum; and se Ceadwalla slōh and tō sceame tūcode þā Norðhymbran lēode æfter heora hlāfordes fylle, oð þæt Ōswold se ēadiga his yfelnysse ādwǣscte. Ōswold him cōm tō, and him cēnlice wiþ feaht mid lȳthum werode, ac his gelēafa hine getrymde, and Crist him gefylste tō his fēonda slege. Ōswold þā ārærde āne rōde sōna Gode tō wurðmynte, ǣr þan þe hē tō dǣm gewinne cōme, and clypode tō his gefērum: "Uton feallan tō ðǣre rōde, and þone Ælmihtigan biddan þæt hē ūs āhredde wiþ þone mōdigan fēond þe ūs āfyllan wile: God sylf wāt geare þæt wē winnaþ rihtlice wiþ þysne rēðan cyning tō āhreddenne ūre lēode."

3. Translate, with notes as to language:—

(*a*) ȝe ne schulen senden lettres, ne underuon lettres, ne writen buten leaue. ȝe schulen beon i-dodded four siðen iðe ȝere, uorte lihten ower heaued [oðer ȝef ȝe wulleð i-schauen hwase wule ieveset. Ah ha mot oftere weschen & kemben hire heauet]: and ase ofte i-leten blod: and oftere ȝif neod is: and hwoso mei beon þer wiðuten, ich hit mei wel i-ðolien. Hwon ȝe beoð i-leten blod, ȝe ne schulen don no þing, þeo þreo dawes, þet ou greue: auh talkeð mid ouer meidenes and mid þeaufule talen schurteð ou to-gederes. ȝe muwen don so ofte hwon ou þuncheð heuie, oðer beoð uor sume worldliche þinge sorie oðer seke. So wisliche witeð ou in our blód-letunge: and holdeð ou ine swuche reste þet ȝe longe þerefter muwen ine Godes seruise þe monluker swinken: and also hwon ȝe i-ueleð eni secnesse: vor muchel sotschipe hit is uorte uorleosen, uor one deie, tene oðer tweolue.

(*b*)

Grim thoucte to late that he ran
Fro that traytour that wicke man;
And thoucte, "Wat shal me to rede?
Wite he him on liue, he wile bethe
Heye hangen on galwe tre:

Betere us is of londe to fle,
And berwen bothen ure liues,
And mine children, and mine wiues."
Grim solde sone al his corn,
Shep wit wolle, net wit horn,
Hors, and swin [and gate] wit berd,
The gees, the hennes of the yerd;
Al he solde, that ouct doucte,
That he eure selle moucte,
And al he to the peni drou:
Hise ship he greythede wel inow,
He dede it tere, an[d] ful wel pike,
That it ne doutede sond ne krike;
Ther-inne dide a ful god mast,
Stronge kables, and ful fast.
Ores god, an[d] ful god seyl,
Ther-inne wantede nouct a nayl,
That euere he sholde ther-inne do:
Hwan he hauedet greythed so,
Hauelok the yunge he dide ther-inne,
Him and his wif, hise sones thrinne,
And hise two doutres, that faire wore,
And sone dede he leyn in an ore,
And drou him to the heye se,
Ther he mict alther-best[e] fle:

4. (*a*) Discuss the metre *or* the language of Piers Plowman.

(*b*) Translate, with annotations:—

And now worth þis Mede ymaried · al to a mansed schrewe,
To one fals fikel-tonge · a fendes biȝete;
Fauel þorw his faire speche · hath þis folke enchaunted,
And al is lyeres ledyng · þat she is þus ywedded.
To-morwe worth ymade · þe maydenes bruydale,
And þere miȝte þow wite, if þow wolt · which þei ben alle

That longeth to þat lordeship · þe lasse and þe more.
Knowe hem þere if þow canst · and kepe þi tonge,
And lakke hem nouȝt, but lat hem worth · til lewte be iustice,
And haue powere to punyschen hem ; · þanne put forth þi resoun.
Now I bikenne þe criste," *quod* she · "and his clene moder,
And lat no conscience acombre þe · for coueitise of Mede."
Thus left me þat lady · liggyng aslepe,
And how Mede was ymaried · in meteles me þouȝte ;
Þat alle þe riche retenauns · þat regneth with þe false
Were boden to þe bridale · on bothe two sydes,
Of alle maner of men · þe mene and þe riche.
To marie þis maydene · was many man assembled,
As of knigtes and of clerkis · and other *comune* poeple.
As sysours and sompnours · Shireues and here clerkes,
Bedelles and Baillifues · and brokoures of chaffare,
Forgoeres and vitaillers · and vokates of þe arches ;
I can nouȝt rekene þe route · þat ran aboute mede.

5. Relate the *House of Fame* to the general movement of European Allegory.

6. Give some account of the sources whence Chaucer drew his materials for the Monk's, Clerk's, and Squire's Tales, and point out when he departs from or adds to his originals.

7. Discuss the metres of the prescribed poems of Chaucer and their origins.

8. Translate, with annotations :—

(*a*) He schewre his feddreme that was schene,
And slippit owt of it full clene,
And in a myre, vp to the ene,
Amang the glar did glyd.
The fowlis all at the fedrem dang,
As at a monster thame amang,
Quhill all the pennis of it owsprang
In till the air full wyde.

And he lay at the plunge evirmair,
Sa lang as any ravin did rair;
The crawis him socht with cryis of cair
In every schaw besyde.
Had he reveild bene to the rwikis,
Thay had him revin all with thair clwikis:
Thre dayis in dub amang the dukis
He did with dirt him hyde.

The air was dirkit with the fowlis,
That come with ȝawmeris and with ȝowlis,
With skryking, skrymming, and with scowlis,
To tak him in the tyde.
I walknit with the noyis and schowte,
So hiddowis beir was me abowte;
Sensyne I curss that cankerit rowte
Quhair evir I go or ryde.

(*b*) Than callit scho all flouris that grew on feild,
Discirnyng all thair fassionis and effeiris;
Vpone the awfull Thrissill scho beheld,
And saw him kepit with a busche of speiris;
Concedring him so able for the weiris,
A radius croun of rubeis scho him gaif,
And said, "In feild go furth, and fend the laif:

And, sen thow art a king, thow be discreit;
Herb without vertew thow hald nocht of sic pryce
As herb of vertew and of odor sueit;
And lat no nettill vyle, and full of vyce,
Hir fallow to the gudly flour delyce;
Nor latt no wyld weid, full of churlicheness,
Compair hir till the lilleis nobilness.

Nor hald non vdir flour in sic denty
As the fresche Ross, of cullour reid and quhyt;

For gife thow dois, hurt is thyne honesty,
Conciddering that no flour is so perfyt,
So full of vertew, plesans and delyt,
So full of blisfull angeilik bewty,
Imperiall birth, honour, and dignite."

(*c*) Ane mvrlandis man of vplandis mak
At hame thus to his nychtbour spak,
"Quhat tydingis gossep, peax or weir?"
The tother rownit in [his eir,]
"I tell 3ow this vndir confessioun,
Bot laitly lichtit of my meir,
I come of Edinburch fra the Sessioun."
"Quhat tythingis hard 3e thair, I pray 3ow?"
The tother answerit, "I sall say 3ow,
Keip this all secreit, gentill brother;
Is na man thair that trestis ane vther:
Ane commoun doar of transgressioun
Of innocent folkis prevenis a futher:
Sic tydingis hard I at the Sessioun."
Sum with his fallow rownis him to pleiss
That wald for invy byt of his neiss;
His fa sum by the oxstar leidis;
Sum patteris with his mowth on beidis,
That hes his mynd all on oppressioun;
Sum beckis full law and schawis bair heidis,
Wald luke full heich war not the Sessioun.

9. Write a study of the metres of Dunbar. *Or*, Discuss the sources of Dunbar's vocabulary.

SIXTH PAPER.

MONDAY, 29*th March* 1897.—2 *to* 5 *o'clock.*

1. Discuss the origin and modification of Middle English diphthongs.

2. Write a study of the Pronouns in Old English,
Or, of the Conjugations of Weak Verbs.

3. Trace briefly the history of English dialects from Caedmon to the later parts of the Chronicle.

4. Write the history of Old English metre.

5. Translate the following passages and identify their dialects. Give your reasons.

(*a*) Agein missawe oþer misdēde, lō, hēr-anont remedīe & salve. Alle cunneþ wel þēos asaumple. A mon þet lēie ine prisūne, & ouhte muche raunsūn, & o none wīse ne schulde ne mē muhte ūt, būte ȝif hit wēre vor te hongen, er hē hefde al his raunsūn fulliche ipaied,—nolde hē cunnen gōd þonc ane monne þet wurpe upon him a bigurdel full of ponewes vor te acwīten & areimen him mide, & alēsen him ūt of pīne, þauh hē wurpe hit ful herde agein his heorte? Al þet hurt & al þet sore wēre vorȝiten & forȝiven vor gledneſſe. Al riht o þisse wise wē bēoþ alle ine prisūne hēr, & owen God greate dettes of sunnen; & for-þī wē ȝēieþ tō him i þe paternoster, *dimitte nobis debita nostra:* "Louerd," wē siggeþ, "forȝif us ūre dettes, also ase wē vorȝiveþ tō ūre dettūrs." Wōuh þet me misdēþ us, oþer of wōrd oþer of werc, þet is ūre raunsūn þet wē schulen areimen us mide, & acwīten ūre dettes tōuward ūre Loverd, þet bēoþ ūre sunnen; vor wiþūte cwitaunce up of his prisūne nis non inumen, þet hē ne biþ anhonged, oþer ine purgatorīe, oþer ī þe pīne of helle. Ant ūre Loverd sulf seiþ, *Dimitte, & dimittetur vobis:* "forȝif, & ichulle forȝive þē." & is as þauh hē seide, "þū ert andetted tōuward mē swuþe mid sunnen; auh wultu gōd foreward, al þet euer eni mon misseiþ þē oþer misdēþ þē, ichulle nimen hit onward þe dette þet tū owest mē."

(*b*) Mec se *u*ēta uong, *u*undrum frēorig,
ob his *i*nnaðæ ǣrest cænd[æ].
Ni uuāt ic mec bi*u*orhtæ *u*ullan flīusum,
*h*ērum ðerh *h*ēhcræft *h*[*y*]gido[n]cum [mīnum].

*U*undnæ mē ni bīað *u*eflæ, ni ic *u*arp hefæ,
ni ðerih ðrea[t]un giðræc ðrēd mē hlimmith,
ne mē *h*rūtendum *h*rīsil scelfæð,
ni mec ōu[ua]n[a] *aa*m sceal cnyssa.
*U*yrmas mec ni āu*ē*fun *u*yndicræftum,
ðā ði *ge*olu *go*duebb *ge*atum frætuath.
Uil mec hudræ suæ ðēh uīdæ ofær eorðu
*h*ātan mith *h*eliðum *h*yhtlic giuæde.
Ni anc*ē*gnu ic mē ærigfæræ *eg*san brōgum,
ðēh ði ni[mæn *f*lānas *f*rac]adlīcæ ob cocrum.

(*c*) Ic Abba gerēfa cyðe ond writan hāte hū mīn willa is þæt mon ymb mīn ærfe gedō æfter mīnum dæge.

Ærest ymb mīn lond þe ic hæbbe, ond mē God lāh, ond ic æt mīnum hlāfordum begæt, is mīn willa, gif mē God bearnes unnan wille, ðæt hit fō tō londe æfter mē, ond his brūce mid mīnum gemeccan, ond siodðan swæ forð mīn cynn dā hwīle þe God wille ðæt ðeara ænig sīe þe londes weorðe sīe ond land gehalden cunne.

6. Identify the dialect of the following passages. Give reasons.

(*a*) Hercnið nu penne he seið. *ant* ȝeornliche understondeð. [I]ch am murðes sonde. *ant* munegunge of eche lif. ant liues luue i-haten *ant* cume riht from heouene *þat* ich habbe isehen nu ant ofte ear þe blisse *þat* na monnes tunge ne mei of tellen. þe iblescede godd iseh ow offruhte. *ant* sumdel drupnin of *þat* fearlac talde of deað. *ant* of helle. ant sende me to gleadien ow. nawt for-þi *þat* hit ne beo al soð *þat* he seide. *ant* þat schulen alle uuele fondin. *ant* ifinden. Ah ȝe wið þe fulst of godd ne þurue na þing dreden for he sit on heh *þat* is ow on helpe. *ant* is al-wealdent *þat* haueð ow to witene.

(*b*) Nu we willen sægen sum del wat belamp on Stephnes kinges time. On his time þe Judeus of Noruuic bohton an *Chr*isten cild beforen Estren ȝ pineden him alle þe ilce pining ð

ure Drihten was pined. ⁊ on lang fridæi hi*m* on rode hengen for ure Drihtines luue. ⁊ sythen byrieden hi*m*. Wenden ð it sculde ben for-holen. oc ure Dryhtin atywede ð he was hali m*artyr*. ⁊ t[h]o munekes hi*m* namen. and bebyried[en] hi*m* heglice in þe minst*re*. and he maket þur[h] ure Drihtin wunderlice ⁊ manifældlice miracles. ⁊ hatte he S*anct* Willelm.

On þis gær co*m* Dauid king of Scotl*and* mid ormete færd to þis land. wolde winnan þis lande. and hi*m* co*m* togænes Will*el*m eorl of Albamar þe þe king [h]adde beteht Euorwic ⁊ to other æuez men mid fæu men and fuhten wid heo*m*. ⁊ flem*den* þe king at te Standard. ⁊ sloghen suithe micel of his genge.

(*c*) Ah atte laste of þi lif hwen þu for me swa rewliche hengedes on rode. ne hafdes i*n* al þis world hwer-wið þ*at* blisfule blodi bodi þu mihtes hule *and* huide. *and* swa mi swete lefmon poure þu þe self was. *and* te poure þu raðeste cheas. pou*er*te þu luuedes. pou*er*te þu tahtes. *and* ȝiuen þu haues echeliche þin endelese blisse. til alle þ*at* clenli for þi luue mesaise *and* pou*er*te wilfulliche polien. A hu schulde i beo riche. *and* tu mi leof swa poure? for-þi swete ih*es*u c*rist* wile i beo poure for þe; as tu was for þe luue of me. for to beo riche wið þe i þin eche blisse. for wið pou*er*te *and* wið wa schal mo*n* wele buggen. A ih*es*u swete ih*es*u leue þ*at* te [luue of þe beo al mi likinge]. Bote pou*er*te wið menske is eað for to polien. Ah þu mi lef for mi luue wið al þi pou*er*te was schomeliche heaned. for hu mon þe ofte seide schomeliche wordes *and* laðfule hokeres. long weren hit al to telle*n*. Bote muche schome þu poledes. hwe*n* þu þ*at* neau*er* su*n*ne dides? was taken as untreowe.

7. Describe the changes in the English minuscule style from Bede's History to the Vercelli MS.

ENGLISH (General British History).

TUESDAY, 30*th March* 1897.—9 *to* 12 *o'clock.*

(N.B. *Not more than* NINE *questions to be attempted. They should be selected from different parts of the Paper.*)

1. How do you account for the fact that the permanent effects of Roman civilisation are so much slighter in Britain than in Gaul?

2. Describe the main features of (*a*) local government, (*b*) popular justice in England, during the tenth century.

3. Sketch the influence of (*a*) the Danish Conquest, (*b*) the Norman Conquest of England on Scottish history, before the year 1200.

4. Compare the aims and policy of Lanfranc, Anselm, and Becket, and show the connection between them.

5. Explain the quarrel of John with the Papacy, the causes which led to his submission, and the influence of that submission on English history during the reign of his son.

6. Show how foreign affairs influenced political conditions and constitutional progress in the reigns of Edward II and Edward III.

7. Discuss the efforts of the Stuart Kings of Scotland in the fifteenth century to strengthen the monarchy, and account for their ill-success.

8. Explain the failure of the English government to complete the conquest of Ireland before the end of the Middle Ages.

9. Estimate the political influence of the English Parliament during the Tudor period.

10. What are the main differences between the English and Scottish Reformations? How do you explain these differences?

11. What is your opinion about the aims and character of Wentworth, Earl of Strafford?

12. Compare the foreign policy of Oliver Cromwell with that of (*a*) Elizabeth, (*b*) William III.

13. Discuss the views of Whigs and Tories in the reigns of William III and Anne on the great questions of the day.

14. What grounds are there for regarding Chatham as the ablest exponent of British foreign policy in the eighteenth century?

15. Trace the political effects of the Industrial Revolution down to the year 1848.

16. Discuss the causes of the Indian Mutiny (1857). What changes did that event make in the government of India?

ENGLISH—BRITISH HISTORY (Wycliffe's Place in Political History).

Tuesday, 30*th March* 1897.—2 *to* 5 *o'clock.*

(Five *questions at most to be answered.*)

1. State briefly what you know of the doctrines of Berengarius of Tours, Marsilio of Padua, Ockham, and Grossteste.

2. Sketch the career of Wycliffe in slight outline, and summarise his main doctrines.

3. Adduce evidence to prove that Wycliffe had anticipated both the political and the ecclesiastical reforms of a much latter period.

4. Trace and explain the history of Lollardy from John Ball to Sir John Oldcastle.

5. Describe in outline the careers of Hus, Jerome, and Peter Payne.

6. How far is the Reformation traceable to English, and how far to foreign causes?

7. "The unity and continuity of Wycliffism are rudely and finally snapped." What does this refer to? Is it true?

8. Explain and discuss—(*a*) Accidents without substance; (*b*)

Making their Maker; (*c*) Works of supererogation; (*d*) Obeying the King by rebelling; (*e*) Evils of Mendicancy.

9. Explain *four* of the following passages:—

(*a*) Rex (Johannes) itaque ob hanc causam mente confusus omnia clericorum et virorum religiosorum fecit confiscari.

(*b*) Rex (Eduardus) clerum a sua protectione exclusit. . . . Nam Archiepiscopus de consensu cleri procuraverat a Papa inhibitionem ne quis clericorum Regem respiceret de bonis Ecclesiae.

(*c*) Nitebatur. . . . probare, ab initio omnes pares creatos a natura, servitutem per injustam oppressionem nequam hominum introductam.

(*d*) Ful sweetely herde he confessioun,
And pleasant was his absolucion;
He was an esy man to yeve penaunce
Ther as he wiste han a good pitaunce.

(*e*) He sette not his benefice to hyre,
And leet his scheep encombred in the myre,
And ran to Londone, unto Seynte Poules
To seeken him a chaunterie for soules.

(*f*) Ex istis videtur correlarie plane sequi quod quacunque communitate vel persona ecclesiastica habitualiter abutente diviciis, reges, principes, et domini temporales possunt legitime et valde meritorie ipsas auferre, eciam quantumcunque tradicionibus humanis eis fuerint confirmate.

V.—HISTORY.

CONSTITUTIONAL HISTORY (1688-1832).

FIRST PAPER (General).

FRIDAY, 26*th March* 1897.—9 *to* 12 *o'clock.*

(FIVE *questions at most to be answered.*)

1. What great political issues were at stake at the close of the reign of James II?

2. State and discuss briefly the chief measures which stamp the reign of William III as a new era?

3. Sketch the history of the Triennial Act, and state the principles involved.

4. "Twelve new peers are created" (1711). "The Peerage Bill is passed by the House of Lords" (1719). Explain.

5. Trace in outline the history of Parliamentary Reform, from Sir F. Dashwood's amendment to the Address, claiming free and fair representation (1745), down to the Reform Bill of 1832.

6. Describe shortly the ministries of George III, down to 1784, their policy, and the attitude of the king towards each.

7. Write a short history of John Wilkes from the constitutional point of view.

8. Sketch and discuss the American Revolution, 1764-75.

9. Note briefly the salient political points in any two of the following topics:—(*a*) Sir Robert Walpole; (*b*) Lord Chatham; (*c*) Edmund Burke; (*d*) William Pitt; (*e*) Liberty of the Press; (*f*) Test Acts; (*g*) Catholic Emancipation.

SECOND PAPER (Special:—Principles; Kingship; Cabinet; Foreign).

FRIDAY, 26*th March* 1897.—2 *to* 5 *o'clock.*

(FIVE *questions at most to be answered.*)

1. Define (*a*) Political Science and (*b*) Constitutional History.

2. Apply the term "Constitutional" to (*a*) the passing of the Septennial Act, and (*b*) the crisis of 1783-4.

3. State and comment on the views of (*a*) Bolingbroke and (*b*) Burke on the relations between King and Parliament.

4. Sketch the history and discuss the merits of the Cabinet System.

5. Write (*a*) A short constitutional history of one of the

North American Colonies; or (*b*) The political history of Switzerland in outline, 1291-1848.

6. Describe and criticise briefly the polity of the United States of America.

7. Note the salient points, the merits and demerits, of the French, or the Swiss, or the Prussian Constitution.

8. Discuss briefly any two of—(*a*) Sovereignty; (*b*) "Adoption and Amendment of Constitutions;" (*c*) Leagues and Unions; (*d*) Representation; (*e*) Functions of the State; (*f*) Spirit of the British Constitution.

(Wycliffe's Place in Political History).

FIRST PAPER.

Saturday, 27*th March* 1897.—9 *to* 12 *o'clock.*

(Five *questions at most to be answered.*)

1. Sketch in outline the history of the Papacy, with special reference to its temporal power, from Sylvester I to Gregory VII.

2. State briefly and discuss the noteworthy points in the careers of (*a*) Anselm, (*b*) Langton, and (*c*) Becket.

3. Whom do you regard as Wycliffe's chief precursors, ecclesiastical and political? What evidence of their influence is found in his writings?

4. Describe shortly the more political part of Wycliffe's career, and explain his political influence.

5. Explain the political bearing of (*a*) transubstantiation, and (*b*) letters of fraternity.

6. State and discuss Wycliffe's views *de dominio civili* and *de officio regis.*

7. Sketch and discuss the history of Lollardy.

8. Note the chief points in the history of (*a*) The Great Schism, and (*b*) The Councils of Pisa and Constance.

9. Explain *five* of—(*a*) De presentatione ecclesiarum controversia . . . in curia regis tractetur. (*b*) Si archiepiscopus defecerit in justititia exhibenda ad regem perveniendum est postremo. (*c*) Redditus regis non ad ejus (redditus clericorum) partem tertiam computatur. (*d*) Statuit rex ne religiosi terras ulterius sibi appropriarent, nisi salvo jure dominorum. (*e*) Clero in denegatione persistente subsidii, rex ipsum a sua protectione exclusit. (*f*) Mani foul errouris multipled Wiclef more than Berengari. (*g*) If they meynten here opiniones . . . they schuld brenne hem and her bokes.

SECOND PAPER.

SATURDAY, 27*th March* 1897.—2 *to* 5 *o'clock.*

(FIVE *questions at most to be answered.*)

1. "Lollardy was practically extinguished by the Statute of Leicester." "Sir John Oldcastle was the last of the Lollards." Explain and criticise.

2. "Constitutionalism in the Church." "Pierre D'Ailly and Jean Gerson were unconsciously influenced by Wycliffe.' Discuss.

3. Sketch briefly the career of John Hus, with special reference (*a*) to the Bohemian Revival, (*b*) to Wycliffism, and (*c*) to Civil Liberty.

4. Trace in outline the history of Peter Payne, in connection with that of Bohemia from the time of Hus to that of Luther.

5. What traces of Wycliffism are discernible in England and Scotland between 1417 and 1517? What bearing had its survival on political life?

6. Explain four of the following passages:—

(*a*) Videtur igitur michi secundum veritatem scripture quod omnes clerici debent pure vivere de decimis, oblacionibus, et

privatis elemosinis laicorum, sic quod omnia civilia dominia in regno debent esse in manibus secularium dominorum.

(*b*) Nec valet ficcio qua dicitur quod rex non habet potestatem sic mutandi elemosinas, nec auctoritatem ad defunctos a collatis suffragiis defraudandum. Nam idem foret hoc dicere et dicere quod rex non habet plenam potestatem omnium temporalium regni sui.

(*c*) Oportet tamen legem Cristi utrobique regulare fidem in talibus cum legius quandoque ex fidelitate quam debet domino debet in casu suo legio regi resistere rebellando. . . . Si esset verisimile homini per subtracciones temporalis invaminis destruere potentatus tyrannidem vel abusum, debet ea intentione subtrahere.

(*d*) Unde Lincolniensis, in responsione ad litteras Romani pontificis de preficiendo quendam cognatum in canonicum Lincolniensis ecclesie, sic respondet. . . . "Apostolica mandata non sunt nec possunt esse alia quam apostolice doctrine et ipsius Domini nostri Iesu Christi."

(*e*) "Knowestow oughte a corseint · that men calle treuthe?
Coudestow aughte wissen vs the weye · where that wy dwelleth"?
"Nay, so me god helpe!" · seide the gome thanne,
"I seygh neuere palmere · with pike ne with scrippe
Axen after hym er · til now in this place."

(*f*) Bothe my gees & my grys · his gadelynges feccheth;
I dar noughte for fere of him · fyghte ne chyde.
He borwed of me bayard · he broughte hym home neure,
Ne no ferthynge ther-fore · for naughte I could plede. . . .
He taketh me but a taile · for ten quarteres of otes.

(*g*) Lur ordre est fondé en poverte,
Pur quei yl vont la voie apierte,
En ciel tot plenerement. . . .
Quant il vont par le pays,

Al chief baroun ou chivaler
Se lerrount il herberger.

BRITISH HISTORY.

FIRST PAPER.

MONDAY, *29th March* 1897.—9 *to* 12 *o'clock.*

N.B.—*Not more than* FOUR *questions to be attempted in each Section.*

SECTION I.

1. Describe the political and social condition of Britain during the Roman occupation, and illustrate by (*a*) references in Latin authors, (*b*) archæological remains.

2. Illustrate the influence of the Church in Anglo-Saxon times on (*a*) the unifying of the kingdom, (*b*) the growth of industry and trade, and (*c*) the spread of learning.

3. "Economic progress only occurs as Feudalism passes away." Discuss this statement.

4. Explain (with a map, if possible) the relations of England with France from 1154 to 1244.

5. Give instances of, and reasons for, the weakness of the kingly power in Scotland in the fifteenth century.

6. Show how the reign of Richard II is of special importance both from the constitutional and economic point of view.

7. Account for the fall of the Lancastrian dynasty.

SECTION II.

8. Mention the different insurrections that took place in England and Ireland in the Tudor Period, and explain the conditions that led up to each of them.

9. Explain the foreign policy of Wolsey, *or* of Elizabeth.

10. Explain the financial schemes of Montague or of Walpole.

11. Give an exposition and appreciation of Pitt's policy with regard to Ireland.

12. Explain the attitude of Burke to the chief questions of his time.

13. What is your opinion of Peel as (*a*) a financier, (*b*) a statesman?

14. How far is it correct to say that the legislation of the nineteenth century has been devoted to the dis-establishing of systems established by Government in previous centuries?

SECOND PAPER.

MONDAY, *29th March* 1897.—*2 to 5 o'clock.*

N.B.—*Not more than* EIGHT *questions to be attempted, of which* TWO *at least must be* selected from the last FIVE.

1. "Though James was often wiser in his aims than the House of Commons, he usually sought to attain them in an unwise way." Illustrate both parts of this statement.

2. What methods were resorted to by Charles I for raising money between 1625 and 1640? What can be said in defence of them?

3. Account for the collapse of Charles I's government in Scotland, and show how Scotland exercised a determining influence in the struggle between King and Parliament.

4. Indicate the leading events in "the triangular duel between the King, the Parliament, and the Army," from the Battle of Naseby to the Execution of Charles I.

5. Discuss the principles of Cromwell's foreign policy, and its effect on Great Britain and Europe.

6. "The restored Monarch was by no means the heir of the old Monarchy." Illustrate this, and show exactly how much was restored at the Restoration.

7. What influences determined the foreign policy of Charles II?

8. Compare the struggle for the Exclusion Bill with the Revolution movement.

9. Give a summary of the attempted arrangements between Charles I and the Long Parliament up to 1645, and indicate the different modifications that would have been made by each on the Constitution.

10. Give the leading provisions of the Instrument of Government, and show how it approximates to the American form of government.

11. Explain Cromwell's attitude to the different Scottish parties, and illustrate by characteristic quotations from his letters.

12. What reasons are given by Cromwell in his Speeches to his Parliaments for disagreeing with them? Discuss these reasons, and compare his dissolutions with those of Charles I.

13. What judgment have you formed of Cromwell's character from his Letters? Support your views by quotations or references.

(CREATION OF THE BRITISH EMPIRE, 1558-1858).

FIRST PAPER.

TUESDAY, 30*th March* 1897.—9 *to* 12 *o'clock.*

(N.B.—*Not more than* EIGHT *questions to be attempted.*)

1. Estimate the relative weight of personal, religious, and commercial considerations in determining the foreign policy of Elizabeth.

2. Give some account of English attempts at colonisation before 1603, and explain their failure.

3. What is the difference between regulated and chartered companies? Mention and describe briefly such as were founded before 1600, and account for their subsequent decay.

4. Examine the influence of political events, conditions, and exigencies on the progress of the English East India Company during the 17th century.

5. Contrast the nature and government of the English colonies in America with those of the Spaniards and Portuguese during the time of the Stuart kings.

6. Discuss the policy of the Navigation Acts, and examine their effect on England, Scotland, and the Colonies. When and how were they modified and abolished?

7. Illustrate and account for the power of France under Louis XIV.

8. Compare the pacifications of Ryswick and Utrecht, and explain why Great Britain gained so much more by the latter treaty than by the former.

9. Explain and criticise the foreign policy of Walpole. In what points did he anticipate Chatham?

10. Give some account of the constitution of the East India Company after 1708. Why is that date so important in its annals?

11. Describe, with the aid of a map, the political condition of India about 1740, showing what opportunities it offered for European aggrandisement.

12. Compare the characters, capacities, and fortunes of Clive and Dupleix.

SECOND PAPER.

TUESDAY, 30*th March* 1897.—2 *to* 5 *o'clock.*

(N.B.—*Not more than* EIGHT *questions to be attempted.*)

1. Illustrate the influence of the British navy on the progress and result of the Seven Years' War in Europe and elsewhere.

2. In what do you consider the greatness of Chatham, as a war-minister, to consist? Compare with his son William in this respect.

3. On what grounds did the French base their claim to the country west of the Alleghanies? Would it be regarded as a valid claim in the present day?

4. Examine the causes which prevented Great Britain from recovering her hold on the revolted American colonies.

5. What were the chief charges made against Warren Hastings? How far were they justified?

6. What is meant by the Mercantile Theory? Give some account of the arguments and circumstances which led to its being given up.

7. Compare the causes which led to the outbreak of the war with France in 1793 with those that led to its renewal in 1803. Was Pitt in earnest in the efforts which he made for peace?

8. Criticise the policy and estimate the influence of Prussia in the struggle with the Revolution and with Napoleon down to the Peace of Tilsit.

9. Compare the Peninsular War with the War of the Spanish Succession, and show how far it may be said to have led to the fall of Napoleon.

10. Give some account of the acquisition by our Colonies of the rights of self-government, and the circumstances which led to this advance.

11. How far was the policy of the British Government in regard to the Eastern Question consistent during the period 1815-1856?

12. "The expression 'conquest,' as applied to the acquisition of sovereignty by the East India Company in India, is not merely loose, but misleading." Explain and criticise this remark by reference to events between 1789 and 1858.

Papers for Degrees in Science.

FIRST SCIENCE EXAMINATION.

Pure Science.

[*For Papers in Mathematics, Natural Philosophy, and Botany, see Papers in these Subjects for the Degree of M.A.; and for Papers in Chemistry and Zoology, see Papers for First Professional Examination for Degrees in Medicine.*]

Engineering.

MATHEMATICS.

(*Additional to Pass Examination for ordinary Degree of M.A.*)

FRIDAY, *9th October* 1896.—1 *to* 4 *o'clock.*

1. Shew, geometrically or analytically, that the cross ratio of a pencil of four lines is constant.

O is any point on an ellipse, K, L, M, N fixed points on the ellipse whose eccentric angles are ϕ_1, ϕ_2, ϕ_3, ϕ_4 respectively. Shew that the cross ratio of the pencil $O(KLMN)$ is constant, by proving it equal to

$$\frac{\sin\frac{1}{2}(\phi_1-\phi_2)\sin\frac{1}{2}(\phi_3-\phi_4)}{\sin\frac{1}{2}(\phi_1-\phi_4)\sin\frac{1}{2}(\phi_3-\phi_2)}.$$

2. Find the condition that the line $lx+my=1$ touch the conic whose equation is the general quadratic function of x and y equated to zero.

Shew, geometrically or analytically, that the locus of a point from which the two tangents to a conic are equal in length consists of the two principal axes, and of these only. What happens in the case of the parabola?

3. Explain the meaning of a partial differential coefficient. In what sense may we logically speak of the partial differential coefficient of c with respect to a, when c is a function of a and b, and a and b are both functions of x?

Find $\dfrac{d}{dx}\sin\dfrac{a}{b}$, when $a=\cos x$, $b=\cosh x$.

4. Shew that the order of differentiation of a function of two variables is indifferent. Find the value of $\delta^3 f / \delta x \delta y^2$ where

$$f = a \cos x / \sqrt{a \sin x + b \sin y + c}.$$

If y and z are functions of x given by the equations

$$x^2/a^2 + y^2/b^2 + z^2/c^2 = 1, \; x^2 + y^2 + z^2 = \rho^2,$$

calculate dy/dx and d^2y/dx^2 as rational functions of x, y, z.

5. Find a rule for finding by differentiation, when that is possible, the limiting value of $f(x)/\phi(x)$ when it assumes the indeterminate form $0/0$.

Find $\underset{x=0}{L} x^{x^x}$; and $\underset{x=\frac{\pi}{4}}{L} \dfrac{\tan^2 x - \cot^3 x}{\cos^4 x - \sin^4 x}$.

6. Shew how to find the values of $\dfrac{dy}{dx}$ and $\dfrac{d^2y}{dx^2}$ when x and y are connected by the equation $f(x, y) = 0$.

Given $x^3 + y^3 - 3axy = 0$, express $\dfrac{dx}{dy}$ and $\dfrac{d^2x}{dy^2}$ algebraically in terms of x and y.

7. Find the values of

(i) $\int dx / \sin x$; (ii) $\int dx x / (x-2)\sqrt{x^2 - 4x}$; (iii) $\int_0^{\frac{\pi}{2}} d\theta \sin^4\theta \cos^5\theta$.

8. y being a function of x given by the equation

$$\frac{d^2y}{dx^2} - x\frac{dy}{dx} - 2y = 0,$$

shew how any higher differential coefficient $\dfrac{d^n y}{dx^n}$ may be found in terms of x, y, $\dfrac{dy}{dx}$.

Find the value of $\dfrac{d^n y}{dx^n}$ when $x = 0$, and shew that if y vanish with x, then y is an odd function of x.

9. Investigate a formula for calculating the area cut off

between two curves whose equations in Cartesian co-ordinates are given.

Verify by analysis that the area of the ellipse $x^2/a^2+y^2/b^2=1$ is πab.

AOB is a quadrant of a circle whose centre is O. PQ is a tangent at any point P on it meeting OB in Q. R is the middle point of PQ. Find in as simple a form as possible the equation in Cartesian co-ordinates to the locus of R. Trace the locus, and find the area lying between it, the circle, and the tangent at A to the circle.

10. Prove the rule for expressing the product of two determinants of the third order as a single determinant of the third order.

Express as the product of four linear factors

$$\begin{vmatrix} a & b & c & d \\ b & c & d & a \\ c & d & a & b \\ d & a & b & c \end{vmatrix}.$$

11. Find an expression for the curvature at any point of the curve given by $x=\phi(t)$, $y=\psi(t)$.

Find the conic of closest contact at the point $\theta=0$ with the curve

$$x=\frac{a}{2}(\theta+\sin\theta), \quad y=a(1-\cos\theta).$$

12. Find the pedal of the curve $r^m=a^m\cos m\theta$, and the curve of which the given curve is the pedal.

Trace the three curves roughly in the case $m=-\frac{1}{2}$.

Public Health.

LABORATORY WORK.

MONDAY, *22nd March* 1897.—10 *to* 12 *o'clock.*

1. *Microbes in Air.*—What pathogenic Micro-organisms have

been found in the air? Describe fully, Petri's method for the Bacteriological examination of the air.

2. What is the average percentage of volatile acids in butter fat? Describe the method for their determination, and give the rationale of the process.

3. State the method for the quantitative determination of (1) Lime, (2) Magnesia, in a potable water.

PRACTICAL WORK.

The following are examples of what have been given at the Examinations:—

(*This part of the Examination lasts four days.*)

1. Quantitative determination of—
   (1) Carbonic Acid, and
   (2) Ammonia in the Atmosphere.

2. Bacteriological examination of Soil, and making culture media.

3. Analysis of, and report on, a sample of potable water.

Each Candidate must recognise Bacteriological Cultures by means of Cultivation, Staining, and Microscopical Examination.

PHYSICS.

MONDAY, 22*nd March* 1897.—1 *to* 3 *o'clock.*

(*Six Questions at most to be answered.*)

1. Define the *Dew Point.* How would you ascertain the amount of vapour present in the atmosphere at any time?

2. Prove the formula for the speed of efflux of a liquid through a small orifice in the vessel containing it. How is the speed of efflux modified if the liquid is allowed to escape by means of a pipe?

3. Into a littre (1000 grs.) of water at 20° C., a mixture of snow and water to the amount of 250 grs. is poured with the effect of lowering the temperature to 5° C. Find the original quantity of unmelted snow, given that the latent heat of the fusion of ice is 80.

4. A luminous point A is situated on the principal axis of a convex lens of great length f, at a distance $\frac{3}{2}f$ from the centre of the lens. A plane mirror is placed on the other side of the lens at a distance $2f$ measured along its principal axis. Find the image of A (1) after refraction at the lens; and (2) after refraction at the lens and reflection at the mirror.

5. The speed of propagation of an electric wave is given by the expression $r=\sqrt{\frac{E}{\rho}}$. Define the terms E and ρ, distinguishing the different forms of wave motion.

Adapt the formula to the case of sound propagation through air, showing that the speed depends solely on the temperature of the air.

6. Explain the construction and use of the following instruments :—(1) the Piezometer, (2) the Inductive Coil, (3) the Radiometer.

7. A spherical conductor of radius 1 cm., charged with electricity at potential V, is brought into contact with the interior surface of an uncharged and insulated spherical conductor of radius 20 cm. What is the charge on the two conductors after contact? If instead of being brought into contact, the charged conductor had been connected with the uncharged conductor by means of a long thin wire, what would have been the respective charges?

8. Explain the different ways in which 12 similar voltaic cells may be arranged in a battery. If the internal resistance of each cell is $\frac{1}{8}$, and the total external resistance in the circuit is $\frac{1}{2}$, find the arrangement which will produce (1) the greatest current, (2) the greatest heating effect.

GEOLOGY.

TUESDAY, 21*st July* 1896.—1 *to* 3 *o'clock.*

1. Give the distinguishing characters of three igneous rocks; three derivative rocks; and three schistose rocks.

2. Distinguish between Lamination, Slaty Cleavage, and Foliation.

3. Show by a diagram section how geological structure affects the surface-configuration in a highly denuded area.

4. Trace the relation between the character of the rocks of a district and the water-supply.

5. Distinguish between a Hill of Accumulation and a Hill of Circumdenudation.

6. What is the origin of soil and subsoil?

FINAL SCIENCE EXAMINATION.

Pure Science.

MATHEMATICS.

NATURAL PHILOSOPHY.

The papers in Mathematics and Natural Philosophy are the same as for the Degree of M.A. with Honours in Mathematics and Natural Philosophy.

CHEMISTRY.

FIRST PAPER.

MONDAY, 20*th July* 1896.—9 *to* 12 *o'clock.*

1. Give methods of preparation, formulæ, and chief properties of—(*a*) Potassium thiocarbonate; (*b*) Potassium thiosulphate; (*c*) Potassium thiocyanate.

2. Explain the action of Sulphuretted hydrogen on solution

of Potassium permanganate, (*a*) with, and (*b*) without the addition of acid.

3. How could you obtain the whole of the Nitrogen from Hydrocyanic acid in the form of Ammonia?

4. How would you distinguish Silica, Aluminium silicate, and ignited Stannic oxide from each other?

SECOND PAPER.

MONDAY, 20*th July* 1896.—1 *to* 3 *o'clock.*

(FOUR *Questions to be answered.*)

1. What is meant by the term "Osmotic pressure"? What methods are used for determining it, directly or indirectly?

2. What is a "Complex Ion"? Give two examples of positive, and two of negative complexions.

3. What are the reagents usually employed in gas analysis for the absorption of (*a*) Oxygen, (*b*) Carbonic oxide, (*c*) Ethylene? How would you analyse a mixture of all these gases with Nitrogen? Give reasons for adopting any particular order in the use of the reagents.

4. How can Hydrazine (N_2H_4) be prepared? What salts does it form with Hydrochloric acid? What is the formula of Hydrazine hydrate?

5. How has the configuration of Glucose been determined? What is the relation of Glucose to Gulose?

6. Assuming that the structural formula commonly adopted for Methan represents the constitution of that substance, give evidence justifying the adoption of the structural formulæ usually assigned to Acetic acid, Ethylidene chloride, Methyl cyanide, and Methyl isocyanide.

7. Sketch the history of the employment in Chemistry of the term "Equivalent."

8. The following are the results of a mineral analysis:—

SiO_2	37.11	FeO	2.44
Al_2O_3	5.88	MgO	1.10
Cr_2O_3	22.54	CaO	30.34

Determine the general formula of the mineral. To what group of silicates does it probably belong? What are the general properties of that member of the group corresponding to the above composition?

(O=16, Si=28, Al=27, Cr=52.5, Fe=56, Mg=24, Ca=40.)

9. What do you understand by (*a*) a "dimorphous" substance, (*b*) an isomorphous group, (*c*) an isodimorphous group? Illustrate your answer by means of examples.

HUMAN ANATOMY (Including Anthropology).

FIRST PAPER.

Wednesday, 22*nd July* 1896.—9 *to* 12 *o'clock.*

1. Describe the position and form of the Limbs in their early stages of development. In what direction does rotation take place in the upper and the lower limb so as to give to each the position found in the adult? How is the position of the fore-arm and hand modified in supination and pronation?

2. What is the mode of origin of a Spinal Nerve, and on what general plan is it distributed? In which region do the spinal nerves retain their simplest segmented arrangement?

3. Describe the position and boundaries in the skull of the canals of communication (*a*) between orbit and nose, (*b*) between nose and roof of mouth. How do they become modified when the soft parts are in position?

4. Explain the difference in structure between Synar-

throdial and Diarthrodial joints. Give examples of the varieties of each.

SECOND PAPER.

WEDNESDAY, 22*nd July* 1896.—1 *to* 3 *o'clock.*

1. Define the terms "bregma," "basion," "lambda," "pterion." Which of these regions are selected as points between which measurements are to be taken in craniometry? Describe the sphenoparietal suture, and state the variations in the arrangement of the bones in this region.

2. Skull A is 183 mm. long and 133 mm. broad: B is 176 mm. long and 146 mm. broad: C is 182 mm. long and 141 mm. broad—calculate the cephalic index in each, and place the skull in its appropriate group.

3. How would you take the length of the humerus, radius, femur and tibia? Define the terms radio-humeral index and femoro-tibial index. How would you compute these indices?

4. What is meant by the conjugate and transverse diameters of the pelvic brim? How is the form of the brim influenced by the conjugate diameter being greater than the transverse? How may pelves be grouped in accordance with the relative differences in these diameters?

5. Define the characters of the so-called Mongolian eye.

PHYSIOLOGY.

THURSDAY, 25*th March* 1897.—9 *to* 12 *o'clock.*

1. (*a*) Describe the minute structure and anatomical relations of the Visual and Pigment Cells of the Retina of a Mammal.

(*b*) Describe in detail the demonstrable effects produced on the Retina by the influence of light.

(*c*) What theories regarding the manner in which the Retina

is stimulated by light have been suggested from the above effects.

2. Describe the histology of the Spleen. By what agencies are alterations in the volume of the organ produced, and how can they be recorded and measured ?

3. Describe the several movements observed in the frog's heart, and discuss the question as to the origin of the heart-beat.

BOTANY.

MONDAY, 22*nd March* 1897.—9 *to* 12 *o'clock.*

NOTE.—*The Oral and Practical Examination will take place in the Laboratory of the Royal Botanical Garden on Wednesday, 24th March, beginning at* 10 A.M.

Candidates are requested to bring with them implements necessary for dissection of plants.

1. What are the various functions of endodermis and pericycle in stems and roots of Dicotyledons ?

2. What are the characteristics of the Ascomycetes ? Describe the life-history of any one of these.

3. Give an account of the process of transpiration, and point out how it is effected (*a*) by soil conditions, (*b*) by atmospheric conditions.

4. Draw typical flower diagrams of a pentamerous Dicotyledon, a tetramerous Dicotyledon, and a trimerous Monocotyledon. Point out how these are modified in Leguminosae, Cruciferae, and Graminae respectively.

5. Indicate the prominent external features of a few British plants growing under different external conditions. Show how these features are adapted to the conditions in which the plants are growing.

GEOLOGY.

(Including Mineralogy and Palæontology.)

Tuesday, 21*st July* 1896.—9 *to* 12 *o'clock.*

1. Describe the growth of an Atoll, and state the geological inferences to which the structure of Atolls has led.

2. What is the ordinary connection between river-gorges and waterfalls?

3. Give some account of the microscopic constituents of igneous rocks.

4. How many planes of symmetry are there in Gypsum, Barytes, and Fluor-spar?

5. Give the mineralogical characters of Nepheline, Opal, Tremolite, Microcline, Sepiolite, Sphene, and Ilmenite.

6. Give the megascopic and microscopic characters of three igneous rocks—(namely, one acid, one basic, and one intermediate type)—and two schistose rocks.

7. Show by a diagram-section how geological structure influences the surface-configuration in a highly denuded area.

8. Refer at least six of the following type-fossils to their respective classes, and give their range in time:—*Elephas meridionalis, Productus horridus, Ichthyosaurus communis, Stigmaria ficoides, Hippurites organisans, Voltzia heterophylla, Cephalaspis Lyelli, Pecten Islandicus, Calymene Blumenbachii,* and *Lingulella Davisii.*

9. Describe the structure of *Archæopteryx.*

10. On what general evidence is the doctrine of the permanence of oceanic basins and continental plateaux founded?

Engineering.

ENGINEERING.

MONDAY, *29th March* 1897.—9 *to* 11 *o'clock.*

1. Give two methods of setting out a curve between two tangents, when the radius and the angle between the tangents are known.

2. Give a general specification of steel to be used in the construction of Bridge and Roof work.

3. Explain the construction and workings of Filters for Water-works, and how the size of these is regulated.

4. Sketch a stone-arched Bridge, 30 feet span, to carry one road over another, the height from the lower roadway to the springing being 12 feet, and the rise of arch 6 feet, giving the principal dimensions, such as thickness of abutments, arch, and wing-walls.

5. Give a general explanation of the working of Triple-Expansion Engines.

NOTE.—*Answers should, as far as possible, be illustrated by Sketches or Diagrams.*

MONDAY, *29th March* 1897.—2 *to* 4 *o'clock.*

1. Explain how the accuracy of a level may be tested on the ground.

2. Sketch a principal for the Roof of a Shed, 50 feet wide; the main rafters to be of timber, and the ties and struts of steel. The principals will be placed 12 feet apart.

3. Explain the working of a Hydraulic Hoist, actuated by a ram.

4. What are the cubic contents of a railway cutting 1000 yards long, 30 feet deep at one end, 20 feet deep at the centre,

and running out to nothing at the other end; supposing the side slopes are $1\frac{1}{2}$ to 1, and the bottom of the cutting is 30 feet wide?

5. Describe the construction of Turbines, and explain the advantages they possess, as compared with ordinary water-wheels.

NOTE.—*Answers should, as far as possible, be illustrated by Sketches or Diagrams.*

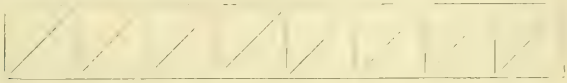
TUESDAY, 30*th March* 1897.—9 *to* 12 *o'clock.*

1. How are curvature and refraction errors dealt with and rectified in levelling operations?

Suppose the level is planted at *A*, and the readings on the staff, held consecutively at *B*, *C*, and *D*, are 2·16, 4·31, and 6·62 respectively, and that the instrument is then moved forward to another point *E*, where the readings on the staff held consecutively at *D*, *F*, and *G*, are respectively 7·38, 5·82, and 8·64; make and balance the note-book, assuming 126·78 as the reduced level at *B*.

2. Explain the "Method of Sections," and employ it to determine the nature and amount of the stresses in a bridge-truss of the type shown in the accompanying sketch (a Whipple-Murphy), supposing a dead load of two tons is carried at each joint of the bottom boom.

If a rolling load of 4 tons to each bay-length, and longer than the bridge itself, be added, which of the bays should be braced, and why?



3. *A. W. I.* shaft is 1000 feet long.—Assuming the follow-

ing data, find (*a*) Its efficiency; (*b*) The diameter, in order to transmit 1000 *H. P.*

Coefficient of Friction = ·03; maximum shearing stress = 10,000 lbs.; greatest velocity = 10 ft. per second; weight of a cubic foot of the material = 470 lbs.

4. What is an "Entropy-temperature diagram"?

Explain how, in such a diagram, (*a*) The work done by a substance passing through a cycle of changes is represented, (*b*) The directions of the lines of constant pressure and constant volume respectively, may be set out.

5. What is the "virtual slope" of a water main?

Water is carried from a reservoir in a *C. I.* pipe, 12 inches in diameter, a distance of one mile. At a point 200 yards from the free end of the pipe, the water in it has a pressure-head of 4·5 feet. Calculate the velocity of discharge and the total head in the reservoir, allowing for resistance at outlet.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

ENGINEERING FIELD-WORK.

TUESDAY, 30*th March* 1897.—3 *to* 5 P.M.

1. Given the lengths and bearings of two consecutive lines in a survey, show how to determine the length and bearing of a third line that will connect the end of the second with the commencement of the first.

2. State clearly what you mean by "line of collimation," and explain how it is adjusted so as to be perpendicular to the vertical axis in the level.

3. What are the more important standards of measurement employed in field-work operations? Give reasons for the selection of each.

4. Explain how, with more or less accuracy, you would determine the amount of water flowing in a stream which is to be used for driving a mill.

5. Write down the Prismoidal Formula, and illustrate its use by an example.

6. What is the use of "contour lines"? Describe the method of determinating their position.

NOTE.—*Answers should, as far as possible, be illustrated by Sketches or Diagrams.*

WEDNESDAY, 31*st March* 1897.—9 *to* 11 *o'clock.*

1. What are the special applications of the Circumferenter in Field-work operations?

Give an example, involving not less than Five Stations, of the co-ordinates method of plotting a Circumferenter survey, and mention the advantages which this method possesses over others in use.

2. A Frame consists of four equal bars so placed as to form a parallelogram, with angles of 30°, and of two diagonal bars, pin-jointed at the corners of the figure, and crossing each other without attachment. There are no external forces on the frame, but it is in such constraint that the longer diagonal is subject to a tensional stress of two tons. Sketch the stress diagram.

3. A uniform beam, uniformly loaded, is continuous over three equidistant supports. (*a*) Show how to determine the proportion of the load borne by the centre support, when its level, relatively to the other two, is assigned. (*b*) Find the reaction at each support, when they are all at the same level.

4. A single open belt, 6 inches wide and $\frac{1}{4}$ inch thick, is used to transmit power from one shaft to another, and runs at 60 feet per second. Supposing a maximum stress of 300 lbs.

per square inch is not to be exceeded, and that the tension in the loose side of the belt is one-half that in the tight side, find, without taking into account the weight of the belt, what horse-power may be transmitted.

5. State approximately what are the limits of expansion in a steam-engine when a single slide valve is used.

Explain by what arrangement a high degree of expansion may be obtained without prejudicial effect upon the other events of the stroke.

Having given the dimensions of the eccentrics, their angular advance, and the sizes of the valves and steam ports, show how, in the latter case, the probable indicator diagram may be drawn.

NOTE.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

DRAWING.

THURSDAY, 1*st April* 1897.—9 *to* 12 *o'clock.*

I.—PLANE GEOMETRY.

1. Draw a cam to revolve uniformly and to give the following motions:—A rise of $3\frac{1}{2}$ inches at a uniform rate: a period of rest of $\frac{1}{6}$ revolution: a uniform fall of $3\frac{1}{2}$ inches: and a period of rest of $\frac{1}{3}$ revolution. Periods of rise and fall are equal. Least metal round shaft 1 inch. Diameter of shaft $1\frac{1}{8}$ inches, and diameter of roller, $1\frac{3}{8}$ inches. Scale: $\frac{3}{4}$ full size.

2. Trace two convolutions of the curve whose radius vector is inversely proportional to the vectorial angle. Given the radius $OP = 6''$ when it makes an angle of 60° with the initial position OX. What curve is this?

3. Find by Graphic calculation the area of section of stream flowing in an egg-shaped sewer of the usual proportions, whose vertical diameter is $4\frac{1}{2}$ feet when depth of stream is $2\frac{1}{4}$ feet.

II.—Solid Geometry.

1. Given the plan and elevation of a line AB and the traces of an inclined plane efh; find the angle between the line and the inclined plane.

2. A hexagonal prism (base $1\frac{1}{2}$ inches side, and length of axis 4 inches), is in such a position that one of its long edges is inclined 40° to the horizontal plane, and an edge of the base meeting it inclined at 30°. Determine the plan and elevation of the solid.

3. A square pyramid and a cone have their bases on the horizontal plane and their axes vertical. In plan their apices are 1 inch apart. The cone has base 5 inches diameter, and height 6 inches: the pyramid has base 6 inches square, and height 8 inches. Draw the plan of the intersection of their surfaces. Scale: $\frac{3}{4}$ full size.

Thursday, 1*st April* 1897.—2 *to* 5 p.m.

Make a carefully finished drawing of *either* of the following:—

(*a*) A pair of bevel wheels of 36 and 24 teeth respectively; pitch of teeth $1\frac{1}{2}$ inches. The teeth are of the usual proportions, and may be cycloidal or involute. The axes are at right angles. The breadth of the teeth is 3 inches. The boss of the larger is 5 inches diameter, with $2\frac{3}{4}$-inch hole; the boss of the smaller, 4 inches diameter, with $2\frac{1}{4}$-inch hole. Both are 4 inches long. Show the wheels half in elevation and half in section.

Scale: half full size.

Or, (*b*) An oblique arch which is a segment of a circle of radius $17\frac{1}{2}$ feet. The bridge crosses a road, which is 30 feet wide, at an angle of 30°. Depth of arch is 3 feet, width of bridge 31 feet. Draw the elevation on a plane parallel to the face of

the arch. Attach the proper descriptive terms to the various parts of the structure.

Take scale as large as the paper will allow.

Inking in is unnecessary.

DYNAMICS.

TUESDAY, 30*th March* 1897.—2 *to* 5 P.M.

1. Define simple Harmonic Motion. Show that two simple Harmonic Motions of equal period compound in general into Elliptic Motion. Under what law of central force may this elliptic motion be described?

A spiral spring is stretched 2 inches by a load of 10 lbs. Find the time of small oscillations.

2. Discuss the plane motion of a rod, one end of which describes a circle uniformly and the other moves in a straight line passing through the centre of the circle. Show how to find the curves described by the instantaneous centre in space and in the body, and find an expression for the angular speed of the rod in any position.

3. Investigate the conditions of equilibrium of a heavy chain hanging from two points not in the same vertical line. Find the curve in which the chain hangs when the weight of any part is proportional to its horizontal projection, and express the tension at any point in terms of the weight of the portion of the chain below this point.

4. Two equal rods are joined together to form a bilaterally symmetrical cross. The system is set in small oscillations about one end of the axis of symmetry. Compare the times of oscillation when the cross-piece is (1) at the middle, (2) at $\frac{3}{4}$ths of the whole length from the upper end of the axial rod.

5. What is the ellipse of stress? Prove the theorem on

which its construction depends, namely, that there are two mutually perpendicular surfaces on which the stresses are wholly normal.

6. Investigate the conditions under which the simple flexure of a beam is possible under the influence of end couples only.

Or, as an alternative,

Express Young's modulus for any isotropic material in terms of the rigidity and resistance to compression.

7. A lorry uniformly loaded is being drawn along a horizontal road with the skid on a back wheel. Determine the angle between the direction of motion and that in which the horses pull.

8. A drum has a rope wrapped round it, one end of which is fixed to the drum, while the other carries a weight. The drum is set in motion by the weight, and turns till the rope is again partly coiled. Show how, by such an experiment, the frictional couple on the drum (supposed constant) may be determined; the horizontal motion of the weight being negligible.

9. A locomotive crane of weight 15 tons is to be capable of lifting 5 tons; the jib extends a horizontal distance of 25 feet from the centre of mass. What is the least diameter of the circle on which the crane revolves for which there will be no pressure on the central standard fixed to the bogie? And what weight on the jib would be required to upset the crane if the bogie runs on rails of gauge 4 ft. 8½ inches?

10. Investigate the number of data necessary to specify the motion of a rigid body, or a system of forces so far as concerns their action on a rigid body.

Show that, if the forces are given, the motion of the body may be determined. If a direct collision take place between two bodies so that an unknown force is introduced, show how the data are still sufficient.

A curling-stone moving without rotation on very smooth ice

impinges obliquely on a similar stone. Determine the subsequent motion of each. Test your results by applying to the case of direct impact.

11. Show that a wheel, excentrically loaded, and rolling on a rough horizontal plane, will press on the plane with varying force and will jump if its speed be sufficient.

Discuss the possibility of the breaking of a rail by such a defect in the driving-wheel of a locomotive.

12. By differentiating the equation

$$a \log (a + \sqrt{\delta + 2g\beta t - x}) - \sqrt{\delta + 2g\beta t - x} + \beta t - \gamma = 0,$$

show that it may be used to represent the motion of a railway train on a constant incline, and subject to constant frictional resistance, the engine working at a constant rate; x denoting the distance traversed at time t.

GEOLOGY.

TUESDAY, 23*rd March* 1897.—1 *to* 3 *o'clock.*

1. What is the history of an amygdaloidal basalt containing calcite and zeolites?

2. Describe the relations of Rapids, Waterfalls, and Ravines in the régime of a river.

3. Give the characters of each of the component minerals of the following rocks:—Basalt, Granite, Marble, Quartzite, and Serpentine.

4. Define the following terms, and draw a section or sections as illustrations:—Isoclinal strata, Unconformity, Dyke, Normal Fault, Outlier, and Inlier.

5. Give some account of Natural Springs.

Public Health.

MEDICINE.

MONDAY, *22nd March* 1897.—10 *to* 12 *o'clock.*

1. Describe the leading clinical characters of Typhus Fever. Mention the conditions under which it is now met with, and state the measures to be adopted to prevent its spread.

2. Mention the chief Respiratory Diseases of old age, and the special features they present at this period of life.

3. Describe the main characters of Leprosy, and discuss the question of its contagiousness.

SANITARY LAW.

MONDAY, *22nd March* 1897.—1 *to* 3 *o'clock.*

1. Give a summary of the Factory and Workshop Act of 1895.

2. State briefly the provisions of the Sale of Horseflesh, etc., Regulation Act of 1889.

3. Discuss the Conclusions arrived at by the recent Royal Commission on Vaccination, and the effect which their recommendations, if carried out, will have upon existing Vaccination Law.

VITAL STATISTICS.

MONDAY, *22nd March* 1897.—4 *to* 6 *o'clock.*

I.—DEATH RATES.

The following rates were recorded, in a Midland Manufacturing town, for the year 1895, in a population of 75,360. Comment generally on the figures in reference to their bearing on the healthiness or otherwise of that town. State what further statistical evidence you would require in one or another direction for complete judgment on this point.

RATES PER 1000 OF THE POPULATION.

Birth Rate.	DEATHS FROM										Infantile Mortality per 1000 births.
	Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	"Fever."	Diarrhœa.	Phthisis.	Respiratory Diseases.	All Causes.	
30·6	0·0	1·10	0·08	0·35	0·42	0·2	2·1	2·2	5·9	24·8	231

II.—Life Table.

Explain how and from what data you would calculate the number of survivors at the *end* of the first and second years of life respectively in a given population. Show how you would proceed in dealing with decennial instead of annual age periods.

Fill in the blanks in the following portion of a Life Table :—

A	B	C	D	E
Age.	Annual Death Rate per 1000 in each year of age.	Probability of living one year from each age.	Out of 509,208 Born.	
			Number of Survivors at each age.	Mean number living in each year of age.
50 years,	19·71	·98048	247,686	245,269
51 ,,	21·16			
52 ,,	22·23			
53 ,,	23·33			

PRACTICAL SANITATION, MENSURATION, AND DRAWING.

TUESDAY, 23*rd March* 1897.—1 *to* 4 P.M.

FOUR *questions only are to be answered, of which Question* 5 *must be one.*

1. What do you mean by the following:—"Hydraulic mean depth"—"Vena contracta"—"Hydraulic Gradient"?

Explain clearly what each has to do with questions of drainage and water-supply.

2. State the fundamental facts and considerations upon which calculations touching the cubic space necessary in rooms and dwellings are based

If ten adult persons were to occupy an apartment, whose total air space is 1000 cubic feet, for four hours, what total amount of carbonic acid per 1000 volts would you expect to find there at the end of that time, supposing that 10,000 cubic feet of fresh air had passed through the apartment each hour?

3. Describe fully the steps that are necessary—including the gauging of such streams as may be met with—in collecting the information needful to determine the amount of water available for a town's supply from any given catchment basin; and explain how the data so obtained are employed in the incidental calculations.

4. Explain, and briefly comment on, each of the following:—King-post—Spigot and Faucit—Footings—Corbel—Grout—Ashlar—Separating Weir—Flemish-bond—Cup-shake—Polling-board—Trimmer—Tumbling-bay.

5. From the dimensioned sketch supplied (a Manhole, in brickwork), make the drawings indicated.

N.B.—*Answers should, as far as possible, be illustrated by sketches or diagrams.*

Agriculture.

AGRICULTURE.

WEDNESDAY, 24*th March* 1897.—9 *to* 12 *o'clock.*

1. Give some account of the capillary movements of water in soil.

To what extent can a farmer control these movements? What effects have dung and the common artificial manures upon capillary phenomena?

2. Describe in detail how you would treat cattle dung from the time it was voided by the animal until utilised on the farm. Point out all the probable sources of loss, and indicate when and how losses may be lessened or prevented by careful management. To what extent, if at all, would you employ preservatives for the dung? Explain the action of the preservatives usually recommended.

On the basis of the rates current for artificial manures, calculate the value of the nitrogen, phosphoric anhydride, and potash present in one ton of good dung. Explain any discrepancies that may appear between this valuation and the price which well-made dung fetches at farm sales.

3. What special qualities are desirable in wheats for grinding purposes?

Explain why the wheats of different countries are usually blended before being used.

What are the distinguishing characteristics of British wheats as compared with those grown in warmer and drier climates?

4. Comment on and criticise the following rotations of crops; note any peculiarities, and say for what classes of soil and what kinds of climate they are adapted.

On the particular soils which you regard as suitable, what

kinds and quantities of artificial manure (if any) would you give to the hay, cereals, potatoes, and roots?

A.	*B*.
(1) Potatoes (without dung).	(1) Wheat.
(2) Oats.	(2) Oats.
(3) Turnips (with dung).	(3) Roots.
(4) Barley (with seeds).	(4) Barley (with seeds).
(5) Grass (cut for hay).	(5) Grass (cut for hay).
(6) .Do. (grazed).	(6th to 10th year) Grass (grazed).

5. Two 300-acre farms, *A* and *B*, are worked respectively on the foregoing rotations. On *A* the root crop averages 20 tons per acre, and is mainly employed in fattening cattle and sheep purchased in store condition. On *B* cattle and sheep are bred and sold as 'stores'; the roots average 15 tons per acre and the grass is of medium quality. Prepare a statement showing the numbers of the different kinds of stock that might be kept on *A* and *B*, and estimate the amount of capital which each farm would require for live-stock.

6. Give a summary of the results of recent investigations upon the effects of the cow's food on the quantity and quality of milk and butter produced, and in particular note any specific effects that have been attributed to the more common feeding-stuffs.

7. Discuss the question of Covered *v.* Open Courts:

(*a*) As affecting the animal.

(*b*) As affecting the manure.

Sketch a plan of an open court big enough to contain eight yearlings, show the position of the shelter-shed, and indicate on the plan or by a section your arrangements for preventing waste of manure. Mark dimensions on the plan in feet and inches, and show the directions N., S., E., and W.

AGRICULTURAL CHEMISTRY.

WEDNESDAY, *24th March* 1897.—1 *to* 3 *o'clock.*

1. What are the conditions necessary for the formation of Carbohydrates in plants? Where does the formation take place? What are the stages that have been ascertained in their elaboration and translocation in the tissues of plants?

2. Describe the physical and chemical changes brought about in the amelioration of peaty and of clay soils by the action of lime.

3. Describe shortly one of the methods employed for the estimation of albuminoid and of amide nitrogen in a feeding stuff.

4. What reasons have we for believing that the fat laid up in the tissues of animals may have been derived from the fat, the albumen, or the carbohydrates of their food?

5. What are the chief circumstances affecting the digestibility of a fodder, and how may the coefficient of digestibility of the albuminoids of a fodder be determined?

6. For what kinds of crops are phosphatic, potassic and nitrogenous manures respectively most appropriate, and what are the circumstances which would determine the form in which you would apply them?

GEOLOGY.

See paper under Department of Engineering.

VETERINARY HYGIENE.

Two hours Paper.

1. Name the hereditary causes of lameness in horses.

2. How is Influenza of the horse recognised, and what are

the *general* principles to be adopted for its prevention and cure?

3. What is the Tuberculin test? Is it of value, and how is it applied?

4. Describe a case of Milk Fever in the cow, and state what means should be adopted for its prevention and cure.

5. What cubic space should be allowed per horse in a stable, and also a cow in a byre?

6. State quantities and varieties of food which a cart-horse should receive per week in this country.

AGRICULTURAL ENTOMOLOGY.

THURSDAY, 1*st April* 1897.—9 *to* 11 *o'clock.*

1. Arrange the most important Orders of Insects in two groups according to whether the members of each order are dissimilar in appearance in their larva, pupa, and imago state respectively, or are very similar in appearance in these conditions. Give examples.

2. Specify six kinds of insects most injurious to pine or larch, whether by tunnelling in the wood; or between the wood and bark, and in shoots; or by destroying foliage; or by feeding in terminal buds. Briefly describe the life-history of one such insect, and methods of preventing or checking its attacks.

3. Name a few species, or families, of parasites, or carnivorous insects, which are of service agriculturally, either in their larval or perfect conditions, by preying within, or feeding upon, other insects at different stages,—such, for example, as cabbage caterpillars, or hop aphides. Write short notes on the habits of one of the commonest kinds.

4. Enumerate some of the most commonly injurious attacks of larvæ of Moth, Beetle, or Fly upon the roots of field crops generally and of pastures. Select any one of the pests you mention, and supply details as to its life-history and means of preventing its ravages.

5. With regard to the different kinds of Œstridæ or Bot-flies that infest farm live stock, give an example of each of the three groups of which the maggots live respectively (*a*) in the hide, (*b*) in the stomach, (*c*) in the nostrils. Specify means of prevention, and also of remedy where known.

FORESTRY.

THURSDAY, 1*st April* 1897.— 11.30 *to* 1.30 *o'clock.*

Candidates have the alternative of answering questions 2 *and* 4.

1. Assuming that you were called upon to form woods on separate areas possessing the under-noted characteristics, indicate in each case (*a*) The preliminary preparation of the ground, if any, (*b*) The species of tree that you would select, (*c*) The method of stocking that you would adopt:—

A. Six inches of poor soil overlying boulder clay, with a North exposure.

B. Deep, rather calcareous, moderate loam, fairly level, at a low elevation.

C. Disintegrated shale, 1000 feet above sea-level, with a South-West exposure.

D. Sandy soil overlaid by 3 inches of peat, covered by a scanty growth of heather, almost level.

E. Heavy clay, somewhat wet, covered by a strong growth of brackens, whins, briars, etc., at a moderate elevation.

F. A hollow, much affected by late frosts.

G. A hillside, subjected to the smoke of an adjoining colliery.

2. Indicate the conditions under which it might be advisable to establish woods of (*a*) Oak and (*b*) Scots Pine, by artificial sowing. What preliminary preparation of the area would you recommend, and what weight of seed the acre would you use in each case?

3. State the general principles that would guide you in thinning a wood. Assuming a wood 30 years of age in each case, indicate under which of the under-mentioned alternative conditions you would have the greater number of trees on an acre (*a*) On poor or rich soil, (*b*) At a high or a low elevation. (*c*) On an area predisposed to produce a strong growth of weeds or the opposite, (*d*) In a wood of spruces or larches.

4. How would you recognise the attack of the following insects—(*a*) The Pine Beetle (Hylesinus piniperda), (*b*) The Pine Weevil (Hylobius abietis), (*c*) The Pine Saw Fly (Lophyrus pini), (*d*) The Ash Bark Beetle (Hylesinus fraxini), (*e*) The Goat Moth (Cossus ligniperda), (*f*) The Beech Aphis (Coccus, or Chermes, Fagi)?

5. Give a detailed account of the natural regeneration of a beech wood on the Shelter Wood Band (or Strip) system.

6. Mention the principal substances with which timber is impregnated with a view to increase its durability, and note the drawbacks to each. Describe the ordinary process of injecting creosote.

ECONOMIC SCIENCE.

(*The paper is the same as the first paper in Political Economy for M.A.*)

ENGINEERING FIELD-WORK.

See paper under Department of Engineering.

Papers for Degree of B.D.

DEPARTMENT I.

HEBREW.

TUESDAY, 30*th March* 1897.—10 *to* 1 *o'clock.*

A.

I. (*a*) Point and translate :—

1 וזאת המצוה החקים והמשפטים אשר צוה יהוה
אלהיכם ללמד אתכם לעשות בארץ אשר אתם עברים
2 שמה לרשתה : למען תירא את יהוה אלהיך לשמר את
כל חקתיו ומצותיו אשר אנכי מצוך אתה ובנך ובן בנך
3 כל ימי חייך ולמען יַאֲרִכֻן ימיך : ושמעת ישראל
ושמרת לעשות אשר ייטב לך ואשר תרבון מאד כאשר
4 דבר יהוה אלהי אבתיך לך ארץ זבת חלב ודבש : כי
יהוה אלהיכם הוא אלהי האלהים ואדני האדנים האל
הגדל הגבר והנורא אשר לא ישא פנים ולא יקח שחד :
5 עשֶׂה משפט יתום ואלמנה ואהב גר לתת לו לחם
ושמלה :

(*b*) Explain the form יאַרכֻן (2), and the precise force of אשר (3). Parse ייטב (3) ; from what stem is its perfect supplied ?

Parse, for form and syntax, זבת (3). Remark on the syntax of 4*a*.

(*c*) Write a short note on the position of the Hebrew *gār, or*, point out any characteristic Deuteronomic words and phrases in the above passage.

II. (*a*) Translate:—

1 בְּפֶשַׁע יַעֲקֹב כָּל־זֹאת וּבְחַטֹּאות בֵּית יִשְׂרָאֵל מִי־פֶשַׁע יַעֲקֹב הֲלוֹא שֹׁמְרוֹן

2 וּמִי בָּמוֹת יְהוּדָה הֲלוֹא יְרוּשָׁלִָם: וְשַׂמְתִּי שֹׁמְרוֹן לְעִי הַשָּׂדֶה לְמַטָּעֵי כָרֶם

3 וְהִגַּרְתִּי לַגַּי אַבְנֶיהָ וִיסֹדֶיהָ אֲגַלֶּה: וְכָל־פְּסִילֶיהָ יֻכַּתּוּ וְכָל־אֶתְנַנֶּיהָ יִשָּׂרְפוּ

בָאֵשׁ וְכָל־עֲצַבֶּיהָ אָשִׂים שְׁמָמָה כִּי מֵאֶתְנַן זוֹנָה קִבָּצָה וְעַד־אֶתְנַן זוֹנָה יָשׁוּבוּ:

4 עַל־זֹאת אֶכְפְּדָה וְאֵילִילָה אֵילֵכָה שׁוֹלָל וְעָרוֹם אֶעֱשֶׂה מִסְפֵּד כַּתַּנִּים וְאֵבֶל

כִּבְנוֹת יַעֲנָה:

(*b*) Write a short critical and exegetical note on verse 1. If במות were the correct reading, what clue should we have to the date of this passage?

(*c*) Translate (adding short notes, grammatical, critical and exegetical, as may seem necessary):—

1 וְהָיָה זֶה שָׁלוֹם אַשּׁוּר כִּי־יָבֹא בְאַרְצֵנוּ וְכִי יִדְרֹךְ בְּאַרְמְנוֹתֵינוּ וְהֵקַמְנוּ

2 עָלָיו שִׁבְעָה רֹעִים וּשְׁמֹנָה נְסִיכֵי אָדָם: וְרָעוּ אֶת־אֶרֶץ אַשּׁוּר בַּחֶרֶב וְאֶת־

אֶרֶץ נִמְרֹוד בְּפִתְחֶיהָ וְהִצִּיל מֵאַשּׁוּר כִּי־יָבוֹא בְאַרְצֵנוּ וְכִי־יִדְרֹךְ בִּגְבוּלֵנוּ:

(*d*) Explain the statement that the only express quotation in the Old Testament is from this book.

III. (*a*) Translate:—

1 כֹּה אָמַר יְהוָה אִם־שְׁלֵמִים וְכֵן רַבִּים וְכֵן נָגוֹז וְעָבַר וְעִנִּתִךְ לֹא אֲעַנֶּךָּ

2, 3 עוֹד׃ וְעַתָּה אֶשְׁבַּר מֹטֵהוּ מֵעָלָיִךְ וּמוֹסְרֹתַיִךְ אֲנַתֵּק׃ וְצִוָּה עָלַיִךְ יְהוָה לֹא־
יִזָּרַע מִשְׁמְךָ עוֹד מִבֵּית אֱלֹהֶיךָ אַכְרִית פֶּסֶל וּמַסֵּכָה אָשִׂים קִבְרְךָ כִּי קַלוֹתָ׃
4 הִנֵּה עַל־הֶהָרִים רַגְלֵי מְבַשֵּׂר מַשְׁמִיעַ שָׁלוֹם חֹגִי יְהוּדָה חַגַּיִךְ שַׁלְּמִי נְדָרָיִךְ כִּי
5 לֹא יוֹסִיף עוֹד לַעֲבָר־בָּךְ בְּלִיַּעַל כֻּלֹּה נִכְרָת׃ עָלָה מֵפִיץ עַל־פָּנָיִךְ נְצוֹר
6 מְצוּדָה צְפֵה־דֶרֶךְ חֲזֵק מָתְנַיִם אַפְּיִן כֹּחַ מְאֹד׃ כִּי שָׁב יְהוָה אֶת־גְּאוֹן יַעֲקֹב
כִּגְאוֹן יִשְׂרָאֵל כִּי בָקְקוּם בֹּקְקִים וּמְמֹרֵיהֶם שִׁחֵתוּ׃

(*b*) Parse נגוזו and ועתך (v. 1). Parse and derive מוסרתיך (2). Distinguish between the *pesel* and the *massekhah*, and give a probable etymology for בליעל (4).

(*c*) Explain the following note of Wellhausen on verse 2 above: "The pronunciation *motehu* seeks to combine *moto* and *mattehu*; the suffix *ehu* is explicable only with מטה, not with מוט," and note that the LXX. has *συντρίψω τὴν ῥάβδον αὐτοῦ ἀπὸ σοῦ*.

B.

I.—Translation.

1. (*a*) Translate:—

1, 2 לַמְנַצֵּחַ עַל־שֹׁשַׁנִּים לִבְנֵי־קֹרַח מַשְׂכִּיל שִׁיר יְדִידֹת׃ רָחַשׁ לִבִּי דָּבָר טוֹב
3 אֹמֵר אֲנִי מַעֲשַׂי לְמֶלֶךְ לְשׁוֹנִי עֵט סוֹפֵר מָהִיר׃ יָפְיָפִיתָ מִבְּנֵי אָדָם הוּצַק חֵן
4 בִּשְׂפָתוֹתֶיךָ עַל־כֵּן בֵּרַכְךָ אֱלֹהִים לְעוֹלָם׃ חֲגֹר חַרְבְּךָ עַל־יָרֵךְ גִּבּוֹר הוֹדְךָ
5 וְהַדָּרֶךָ׃ וַהֲדָרְךָ צְלַח רְכַב עַל־דְּבַר־אֱמֶת וְעַנְוָה־צֶדֶק וְתוֹרְךָ נוֹרָאוֹת
יְמִינֶךָ׃

(*b*) Write notes explanatory of the various phrases of the title of this Psalm, as expressed in verse 1.

(*c*) Parse and comment on מעשי (v. 2), יפיפית (3), על-דבר-אמת (5), ענוה צדק (5).

(*d*) Discuss various theories with regard to the origin of this Psalm.

2. (*a*) Translate:—

11,12 אֱלֹהֵי חַכְּתִּיו יַקְדְּמֵנִי אֱלֹהִים יַרְאֵנִי בְּשׁוּרָרִי: אַל־תַּהַרְגֵם פֶּן־יִשְׁכְּחוּ עַמִּי
חסדי קרי׳ הֲנִיעֵמוֹ בְחֵילֶךָ וְהוֹרִידֵמוֹ מָגִנֵּנוּ אֲדֹנָי: חַטַּאת־פִּימוֹ דְּבַר־שִׂפְתֵימוֹ וְיִלָּכְדוּ
14 בְּגְאוֹנָם וּמֵאָלָה וּמִכַּחַשׁ יְסֻפָּרוּ: כַּלֵּה בְחֵמָה כַּלֵּה וְאֵינֵמוֹ וְיֵדְעוּ כִּי־אֱלֹהִים
מֹשֵׁל בְּיַעֲקֹב לְאַפְסֵי הָאָרֶץ סֶלָה:

(*b*) Compare K^{e}thibh and Q^{e}ri in verse 11.

(*c*) Discuss the force of the conjunctive in וילכדו (13).

II.—Jewish History.

1. Describe the reign of Jotham with reference both to the home and to the foreign policy of that monarch.

2. Write short historical notes on the following names:—

Rezin—Lachish—Necho.

3. Discuss and, if possible, illustrate the following statements:—

(*a*) "The kings of Judah regarded the treasury of the temple as a sort of reserve fund available for political purposes."

(*b*) "There always existed in Jerusalem, even in the best times, a heathenising party; and it was unfortunately composed of princes and aristocrats who could bring strong influence to bear upon the king."

III.—Hebrew Prose.

1. Now while I was sitting happily at my feast, my maid-servant, who has served me sixteen years, came and told me that a stranger wished to speak to me. So I rose up and went

to the gate where he was standing, for he would not come in, because his garment was old and his feet were covered with dust. "Who art thou?" I said; and the man replied in foreign words, "I am a dreamer of dreams, and it hath been shown me that thou shalt not prolong thy days: for thou art worthy of death, and thou art an abomination to the poor, since thou hast multiplied to thyself silver and gold." But I did not believe the man's words, neither was I frightened.

2. "As soon as the woman knew of the king's coming, she set open the gates and came out, and every man could not cease to regard her beauty, and to listen to the gracious words she spoke. Then the king went into the hall, and sat down among his lords, and he ate but little, but sat still musing. Some thought it was because his enemies had escaped from him. All that day the king tarried, and wist not what to do: but in the morning he arose, and caused his hosts to chase his enemies out of his realm. Then he took leave of the woman, saying, 'To God I commend you till I return again.'"

APOLOGETIC THEOLOGY.

TUESDAY, 30*th March* 1897.—2 *to* 5 *o'clock.*

MATERIALISM AND POSITIVISM.

1. Describe the materialistic hypotheses propounded in the *De Rerum Natura* of Lucretius, and compare them with those of modern materialism.

2. Explain the prevalence of materialism in recent times, and describe generally the lines of argument followed by any three of its more important defenders.

3. Examine in detail the principles set forth by materialistic evolution as sufficient without introducing the supposition of a Designer to explain the relativity of things to one another, and discuss the question whether these principles can, under this

condition, be made to yield a complete and consistent ethical theory.

4. Examine the Positivist arguments against the Christian religion which rest on (*a*) Comte's Law of the Three States, (*b*) Comte's views regarding Causality, and (*c*) Comte's conception of Humanity.

THE PREPARATION IN HISTORY FOR CHRIST.

1. Explain and comment on the following statements:— "Even secular historians are agreed as to the suitability of the combinations at the moment of Christ's appearing, and deduce the success of His system of morals and religion from this fact. Students of Comparative Religion agree also in this conclusion."

2. Illustrate or correct the assertion, that the teaching of Jesus regarding the Resurrection of the Dead, Satan, and the Angels, was a direct development of ideas acquired by the Jews when under Persian government.

3. Estimate the part played by Greek philosophy as a preparation in history for Christ.

4. Show the inner organic connection of Christianity with the whole development of the Old Testament religion. Comment on the views of Marcion in this connection. Consider also whether historical criticism has proved the futility of the claim that Christ was a miraculous fulfilment of individual prophecies.

THE LIFE AND WORK OF CHRIST IN RELATION TO APOLOGETICS.

1. Estimate the importance to Apologetics of the historical Christ, and give an account of recent tendencies to make Christianity, as far as possible, independent of history.

2. Are the Life and Work of Christ as central and significant in Christian Apologetics as in Christian Dogmatics? Discuss the question.

3. How may Apologetics best show that the death of Christ was not the failure but the chosen and suitable means for the highest achievement of His work?

4. Show in what ways the argument for Christianity from miracles is related to the argument from the Life and Work of Christ.

DEPARTMENT II.

ECCLESIASTICAL HISTORY.

WEDNESDAY, 31*st March* 1897.—10 *to* 1 *o'clock.*

1. "The Emperors of the second century had nothing to do with the persecutions of Christians; on the contrary, the whole tendency of the government was eminently favourable to the spread of the new religion." Give a brief sketch of the history of Christianity in this period with reference to the above statement.

2. Explain the occasion and nature of the Apologies of Justin Martyr. Indicate his relations to popular heathenism and Greek philosophy, and his position in regard to the development of Christian doctrine.

3. Trace, with reference to leading writers, the development of ideas up to the middle of the fifth century regarding (*a*) ecclesiastical tradition, and (*b*) the doctrine of the "One Holy Catholic Apostolic Church."

4. Explain carefully the interrelations of Church and State under Constantine and his immediate successors.

5. Describe the parts played in the Arian controversy by Arius, Athanasius, Eusebius of Nicomedia, and the Emperors Constantine, Constantius, and Valens.

6. When and where were the first four Œcumenical Councils held? State succinctly the points in dispute, the representatives of the opposing parties, the decisions arrived at, and the subsequent history of the opinions condemned.

7. Sketch the leading incidents and the questions of principle evolved in the history of the Donatist Schism.

8. Show, by short biographical accounts, the importance in Church history of Ambrose, Augustine, Basil, and Tertullian.

9. Give an account, up to the middle of the fifth century, of the diffusion of Christianity beyond the bounds of the Roman Empire in Europe and in the East. Account for cases of rapid national conversion, and of Churches holding heterodox views.

10. Trace the development of liturgical elements in public worship from 100 to 451 A.D. What are the sources of our knowledge regarding these?

11. Briefly explain the steps taken for the restoration of episcopal government and usages in Scotland from 1600 to 1621 A.D.

12. Distinguish the Covenants of 1638 and 1643, and show how the following terms were applied:—Malignants, Sectaries, Remonstrants, Resolutioners, Protesters, and Society-men.

13. Note the leading Acts of the Scottish Parliament in the reign of Charles II. directed against those who refused to conform to Episcopalianism, and describe the steps taken to enforce them.

14. Write short notes on:—

(*a*) The objections within the Church to the Covenants.

(*b*) The qualifications with which the General Assembly accepted the Westminster Confession.

(*c*) The legal position of the Church of Scotland to Confession and Liturgy from 1661 to 1689.

SYSTEMATIC THEOLOGY.

WEDNESDAY, 31*st March* 1897.—2 *to* 5 *o'clock.*

THE SOURCES OF CHRISTIAN DOCTRINE, AND THE PLACE, FUNCTIONS, METHOD AND HISTORY OF CHRISTIAN DOGMATICS.

1. Discuss the statement "Dogmatic admits only of a relatively scientific treatment of the subjects which it sets forth. It is not a pure but an applied science; the principles of religion given in the religious consciousness are its presuppositions, and these lie beyond the range of rigid scientific proof."

2. Illustrate the legitimate and illegitimate uses of the speculative method in the discussion of Christian doctrines. State and give reasons for what seem to you the best divisions of the subject of Dogmatics.

3. Indicate carefully the place of Dogmatics among the sciences that treat of religious subjects.

4. Characterise the chief epochs of the history of Christian Dogmatics.

THE DOCTRINE OF THE TRINITY AND THE INCARNATION.

1. Distinguish the orthodox doctrine of the Trinity from the chief historical heresies on the subject. Show how the terms—*οὐσία*, *ὑπόστασις*, *πρόσωπον*, *ὁμοούσιος*, *ὁμοιούσιος*, *ὅμοιος*, *περιχώρησις* and *communicatio idiomatum* have been employed in the controversy.

2. Examine the assertion:—"The inconsistency of the Trinitarian Dogma is only superficially concealed by the terms employed, for the asserted unity of the godhead implies a unity of personal self-consciousness, and the doctrine of three divine persons logically leads to Tritheism."

3. Explain the Logos doctrine of the New Testament and

connect it with the teachings of Judaism. Mark carefully the main stages in the development of the Church teaching regarding the union of the divine and the human in Christ.

4. Discuss the question whether there was a necessity for the Incarnation of the Son of God independently of sin, referring to the teaching of Scripture and of leading theologians.

The Doctrine of the Atonement.

1. How far does Scripture seem to sanction the distinction between Atonement as a religious theory and Redemption as an ethical theory? Describe theories of leading English and German theologians and thinkers in which the religious view of Christ's soteriological work appears to you to be unduly subordinated to the ethical.

2. Show the chief lines of thought in Anselm's Satisfaction Theory, and trace its development in the teachings of the Roman Catholic Church and of Calvin.

3. Describe the Mystical Theory of the Atonement as held (*a*) by Origen, (*b*) by Osiander, and (*c*) by the School of Schleiermacher.

4. Indicate the chief varieties of opinion held in the nineteenth century as to the nature and the extent of the Atonement. Mention at least one prominent advocate of each of those varieties of opinion.

BIBLICAL CRITICISM.

Thursday, 1*st April* 1897.—10 *to* 1 *o'clock.*

I.—*Robertson's "Early Religion of Israel."*

1. Describe the origin of the calf-worship in Israel, and discuss Kuenen's words "Jahveh was worshipped in the shape of a young bull."

2. Exodus xx. 24.—"In all places where I record My name I will come unto thee, and I will bless thee." What is the argument drawn from these words by the critics of the Kuenen-Wellhausen School, and how far is such an argument warrantable? Give your own interpretation, and refer to the historical incidents which seem to you to support it.

3. "The modern historians, in their negation of a pure *pre-prophetic* religion, are ever faced with the task of explaining the rise of pure *prophetic* religion."

Write a short essay with the above sentence of Professor Robertson as the text.

4. Sum up what you learn from Hosea and Amos as to the knowledge possessed by Israel in their day regarding Law, and Ritual, and Deity.

II.—*Introduction to the Poetical and Prophetical Books of the Old Testament.*

1. Describe the present arrangement of the Psalter; mention some testimony as to the antiquity of that arrangement: give reasons for thinking that this was not the original arrangement.

2. Write a short criticism of the following statement:—"There is evidence that the association of David's name with the Temple Psalmody originally referred to the music and execution rather than to the hymns themselves."

3. What special difficulty does the text of Jeremiah present to the critic, and how is this difficulty most satisfactorily explained?

4. In what way do some living critics deal with the Books of Isaiah and Amos as regards Unity and Authorship?

III.—*Manuscripts, Versions, and Disputed Passages.*

1. St. Luke vi. 4.—ὡς εἰσῆλθεν εἰς τὸν οἶκον τοῦ Θεοῦ καὶ τοὺς

ἄρτους τῆς προθέσεως λαβὼν ἔφαγεν καὶ ἔδωκεν τοῖς μετ' αὐτοῦ, οὓς οὐκ ἔξεστιν φαγεῖν εἰ μὴ μόνους τοὺς ἱερεῖς ;

T.R.,	*ελαβεν, και*	AC^{3}EHMRSUVΓΔΛ latt syr-har goth.
R.V. and Alford,	*λαβων,*	BC^{1}LX 33 syr-pesh copt.
Alii,	*Omit,*	DKΠℵ 1 69 syr-hier æth arm.

Write out the meaning of these symbols, and give some account in detail of all the authorities cited except those which support the received text.

2. Suppose an uncial MS. of the gospels to be discovered, and to be handed to you for examination : by what tests would you seek to estimate its probable age, and its critical worth? Explain the nature of those tests.

3. MATTHEW xix. 17 (T.R.).—*τί με λέγεις ἀγαθόν; οὐδεὶς ἀγαθός εἰ μὴ εἷς ὁ Θεός.*

State the reading which the Revisers preferred, and the documentary evidence for such reading.

4. State what you know of Σ, Ψ, Ω, ב.

IV.—*Introduction to the Gospels (with Canonicity).*

1. Summarize the evidence for the belief that St. Mark's Gospel was written at the direction of St. Peter.

2. Translate :—

Εἶτα φόβος νόμου ᾄδεται καὶ προφητῶν χάρις γινώσκεται καὶ εὐαγγελίων πίστις ἵδρυται καὶ ἀποστόλων παράδοσις φυλάσσεται καὶ ἐκκλησίας χάρις σκιρτᾷ.

And also :—

Οὗτος (sc. *λόγος*) *ὁ ἀπ' ἀρχῆς ὁ καινὸς φανείς, καὶ παλαιὸς εὑρεθείς, καὶ πάντοτε νέος ἐν ἁγίων καρδίαις γεννώμενος. Οὗτος ὁ ἀεὶ, σήμερον υἱὸς λογισθείς· δι' οὗ πλουτίζεται ἡ ἐκκλησία, καὶ χάρις ἁπλουμένη ἐν ἁγίοις πληθύνεται, παρέχουσα νοῦν, φανεροῦσα μυστήρια, διαγγέλλουσα καιροὺς, χαίρουσα ἐπὶ πιστοῖς, ἐπιζητοῦσι*

δωρουμένη, οἷς ὅρια πίστεως οὐ θραύεται οὐδὲ ὅρια πατέρων παροριζεται.

State what you know of the Letter to Diognetus, from which these extracts are taken. To whom has it been attributed erroneously? What is the value of its testimony here?

3. Translate:—

Ὁ μέντοι γε πρότερος αὐτῶν ἀρχηγὸς ὁ Τατιανὸς συνάφειάν τινα καὶ συναγωγὴν οὐκ οἶδ' ὅπως τῶν εὐαγγελίων συνθεὶς τὸ διὰ τεσσάρων τοῦτο προσωνόμασεν· ὃ καὶ παρά τισιν εἰσέτι νῦν φέρεται. Τοῦ δ' ἀποστόλου φασὶ τολμῆσαί τινας αὐτὸν μεταφράσαι φωνὰς, ὡς ἐπιδιορθούμενον αὐτῶν τὴν τῆς φράσεως σύνταξιν.

Give a brief account of Tatian and of his work.

4. (*a*) What is the present position of what has been called The Johannine Problem? (*b*) Specially state what bearing the Didache has upon it according to Resch.

Papers for Degrees in Law (LL.B. and B.L.).

SCOTS LAW.

MONDAY, 15*th March* 1897.—9 *to* 1 *o'clock.*

(*Not more than* THREE *questions to be answered in each group.*)

I.

1. How far may a married woman incur personal obligations binding (1) herself, (2) her husband?

2. *A* dies intestate, possessed of £2250, and heritage of the value of £600. He leaves a widow, two daughters, *B* and *C*, and three grandsons, *d*, *d'*, *d''*, the issue of a predeceasing son *D*. How is his estate divisible?

3. What safeguards protect against wrongous enclosure in an asylum?

4. How may trust be proved?

II.

1. What are the chief objections that may be taken to the validity of a patent?

2. What are the elements necessary to support an action of damages for fraud at common law? What other forms may the remedy take?

3. State, briefly, the law relating to underground water.

4. What are violent profits; and how do they appear in our practice?

III.

1. What is (1) a sale induced by sample; (2) a sale by sample? What are the implied conditions in the latter?

2. What are the rights of an assignee of a share in a partnership?

3. What may be the legal result of an alteration made on a bill or acceptance?

4. What is the common memorandum at the end of a Lloyd's Policy?

IV.

1. State the requisites for the extinction of a debt by compensation.

2. What is the Act and Warrant of a trustee in bankruptcy, and what are its effects?

3. How and to what extent may the objects set out in the Memorandum of Association of a Company be altered?

4. What amounts to criminal uttering of a forged document?

CONSTITUTIONAL LAW AND HISTORY.

FIRST PAPER.

MONDAY, 15*th March* 1897.—2 *to* 4 P.M.

(FIVE *questions only to be answered*)

1. Define "Political Science," "Constitutional History," and "Constitutional Law."

2. Sketch and explain the chief political institutions of the Anglo-Saxon period.

3. Trace in outline the history and the inter-relations of State and Church in the reign of either (*a*) William I. or (*b*) Henry II.

4. (*a*) Explain generally the nature of the Great Charter, and (*b*) Mention its chief constitutional provisions.

5. Trace the evolution of Parliament from Anglo-Saxon beginnings down to 1295.

6. Discuss briefly the statutes of *Mortmain*, *Quia Emptores*, and *De Asportatis*.

7. Describe in outline the policy of Edward I.

8. Discuss briefly the statutes of *Labourers*, *Provisors*, *Treasons*, and *Praemunire*.

9. Describe and explain the "premature constitutionalism" of the Lancastrian régime.

10. Describe and discuss briefly the chief events, either political or ecclesiastical, of the reign of Henry VIII.

11. What do State and Church respectively owe to Queen Elizabeth?

12. Contrast the kingship claimed by the Stewarts with the kingship established by the Revolution.

13. Discuss two of—(*a*) Hampden's Case; (*b*) Seven Bishops' Case; (*c*) Revolution Settlement; (*d*) Wilkes's Case; (*e*) Religious Toleration; (*f*) Parliamentary Reform.

SECOND PAPER.

TUESDAY, 16*th March* 1897.—2 *to* 4 P.M.

(FIVE *questions only to be answered.*)

1. Trace and explain the history of Cabinet Government.

2. Explain and illustrate George III.'s conception of the kingship.

3. Sketch the history and the polity of one of the North-American Colonies, and discuss the principles of Colonisation.

4. What were the main points at issue between the Thirteen Colonies and Great Britain (1765-75)?

5. Describe in outline the Constitution of the United States of America.

6. France is said to have borrowed its philosophy from England and its constitution from America. Explain.

7. Sketch the present Constitution of France, or that of Switzerland, with comments.

8. Sketch and discuss the present Constitution of Prussia, or that of the German Empire, or that of Hungary.

9. Explain and illustrate the principles of the adoption and the amendment of constitutions.

10. Discuss *any two* of—(*a*) League of States and Union-State; (*b*) Referendum and Initiative; (*c*) Sovereignty; (*d*) Privilege, Protection, Prerogative; (*e*) Separation of Legislature and Executive; (*f*) Ministerial Responsibility; (*g*) Equality before the Law.

CIVIL LAW.

TUESDAY, 16*th March* 1897.—9 *to* 1 *o'clock.*

A.—HISTORY.

(*All Candidates are expected to answer* SIX *questions in this group.*)

1. Divide the history of Roman law into periods, giving reasons for your division.

2. Sketch the salient features in the organisation of the early Roman family.

3. What constitutional changes followed upon the expulsion of the Kings?

4. How did the Roman jurists justify the institution of

Slavery? Discuss its economic and legal aspects during the early period.

5. Point out the archaic features in the system of procedure *per legis actiones.*

6. Certain legal rules and institutions are ascribed to the *Jus Gentium*: what is meant? Give some examples.

7. How was the Senate's *legislative* power accounted for? At what date was it most actively exercised?

8. Describe the circumstances under which the Institutes of Justinian were compiled. What use was made of earlier treatises?

B.—Institutes.

(The first question must be answered by all candidates; Candidates for M.A. or B.L. should attempt Six, *and Candidates for LL.B.* Four *of the remaining questions.)*

1. Translate, adding any necessary explanations—
   (*a*) Responsa prudentium sunt sententiae et opiniones eorum quibus permissum erat jura condere.
   (*b*) Quibus autem dignitas magis quam status permutatur, capite non minuuntur: et ideo senatu motos capite non minui constat.
   (*c*) Ex nostra constitutione emancipationes liberorum semper videntur contracta fiducia fieri, cum apud antiquos non aliter hoc obtinebat nisi specialiter contracta fiducia parens manumisisset.
   (*d*) Furti autem actio ei competit cujus interest rem salvam esse, licet dominus non sit.

2. What was the status of a Junian Latin? How could he attain to citizen-rights?

3. How far was a *pater familias* liable on the contracts of (1) his slave, (2) his *filius familias*?

4. Sketch the development of the law as to the curatory of minors.

5. On what general principles was the question of ownership determined when things belonging to different owners were united or combined?

6. Sketch briefly the history of the law limiting the amount of his property which a testator might dispose of by way of legacy.

7. Mention the principal amendments in the law of intestate succession which were due to the praetor.

8. Distinguish the different forms of the contract of *Locatio*. What were the duties of the parties to the contract, and how was it terminated?

9. Explain the nature of the delicts which gave rise to the *actio injuriarum*. Was the action transmissible? Was there any alternative remedy?

C.—Digest XVIII. 1 and XIX. 1.

(*To be answered by Candidates for LL.B.*)

1. How was a Contract of Sale distinguished from other kindred transactions?

2. Translate, with any necessary explanations—

Either,

In vendendo fundo quaedam etiam si non dicantur, praestanda sunt, veluti ne fundus evincatur aut usus fructus eius, quaedam ita demum, si dicta sint, veluti viam iter actum aquae ductum praestatu iri: idem et in servitutibus urbanorum praediorum.

Si cum servitus venditis praediis deberetur nec commemoraverit venditor, sed sciens esse reticuerit et ob id per ignorantiam rei emptor non utendo per statutum tempus eam servitutem

amiserit, quidam recte putant venditorem teneri ex empto ob dolum.

Quintus Mucius scribit, qui scripsit "ruta caesa quaeque aedium fundive non sunt," bis idem scriptum: nam ruta caesa ea sunt quae neque aedium neque fundi sunt.

Or,

Fundi nihil est, nisi quod terra se tenet: aedium autem multa esse, quae aedibus adfixa non sunt, ignorari non oportet, ut puta seras claves claustra: multa etiam defossa esse neque tamen fundi aut villae haberi, ut puta vasa vinaria torcularia, quoniam haec instrumenti magis sunt, etiamsi aedificio cohaerent.

Praedium aestimatum in dotem a patre filiae suae nomine datum obligatum creditori deprehenditur: quaesitum est, an filius, qui hereditatem patris retinet, cum ab ea se filia abstinuisset dote contenta, actione ex empto teneatur, ut a creditore lueret et marito liberum praestaret. Respondit teneri.

CONVEYANCING.

WEDNESDAY, 17*th March* 1897.—9 *to* 1 *o'clock.*

(TWELVE *questions only to be answered. But questions* 6, 7, 10, *and* 13 *must be included in the twelve.*)

1. Sketch the Feu Charter in the form in use before the legislative changes began.

2. Discuss the use of the words "right" and "title" in relation to heritable property.

3. Explain what Charters and Writs by progress were exempted from the abolition of such Charters and Writs by the Conveyancing Act.

4. State the main distinctions between Charter of Resignation and Charter of Confirmation.

5. Explain the changes on the system of registration introduced by the Land Register Act, 1868.

6. Distinguish between "absolute warrandice," "fact and deed warrandice," and "simple warrandice."

7. Explain the uses of the terms "Conditional institute" and "substitute" in heritable and mixed succession.

8. Discuss Contract of Excambion.

9. Deal historically and practically with the assignation of an unrecorded Conveyance.

10. Discuss the real diligence of poinding the ground.

11. Explain the effect of a Trust Disposition for behoof of Creditors with relation to the Truster's heritable property.

12. Treat of the disentailing provisions of the Rutherfurd Act, § 3.

13. Sketch the Instrument of Disentail, and explain its legal effects.

14. Explain the alteration of the law as to succession to a tenant introduced by the Agricultural Holdings Act.

15. Discuss the powers of granting leases and dealing with tenants conferred on trustees by the Trusts Acts.

FORENSIC MEDICINE.

WEDNESDAY, 17*th March* 1897.—2 *to* 4 P.M.

1. *Arsenical Poisoning.* — To what class of poisons does "White Arsenic" belong? State the characteristic symptoms of poisoning by this substance.

2. Define the term Criminal Abortion. What means have been used for its perpetration?

3. *Identity of the Living.*—What facts must be kept in mind, in relying on the presence or absence, of tatoo-marks, in determining identity?

4. In a fight, a man receives a wound on the scalp. The

prosecution alleges that it was done with a knife, while the prisoner states that it was done with a stick. How should the wound be examined to settle this point?

5. *Inheritance and Legitimacy.*—What is the average period of human gestation? Discuss any important decision known to you which involved the question.

GENERAL JURISPRUDENCE (Philosophy of Law).

Thursday, 18*th March* 1897.—9 *to* 11 *o'clock.*

(*Not more than* six *Questions to be answered.*)

1. Is it possible to define "Law" satisfactorily? What difficulties stand in the way of definition?

2. "The Commonweath is one Person of whose Acts a great multitude, by mutual Covenants one with another, have made themselves every one the author." Examine and criticise.

3. Distinguish between the Nominal, the Legal, and the Ultimate Political Sovereign. In what sense is the Legal Sovereign omnipotent?

4. Examine the Horde Theory.

5. What is a "source of Law"? In what sense is Custom a source of Law? Notice the different views.

6. What is the movement from Status to Contract?

7. "La Proprieté c'est le vol." Discuss.

8. Define an "Act." What are the essentials of an Act?

9. How did Grotius conceive of the "Law of Nature"? Show how he utilised his conception as the foundation for a system of International Law.

10. What is the value of the Organic Theory of the State?

11. Trace the evolution of Remedial Rights.

12. Analyse the notion of Contract.

PUBLIC INTERNATIONAL LAW.

THURSDAY, 18*th March* 1897.—12 *to* 2 *o'clock.*

[*Not more than* SIX *Questions to be answered.*]

1. "Mr. Austin's identification of the Law of Nations, with International Morality, was, on more grounds than one, most unfortunate." Explain and discuss.

2. What is the importance of the Sixteenth Century to the student of International Law?

3. Discuss "Treaties" as sources of Law.

4. In what circumstances do claims for Recognition arise? When may Recognition be granted in the different circumstances?

5. What are "Territorial Waters"?

6. Define Piracy, examining each point of the definition; and give a classification of piratical acts.

7. Distinguish between Mediation, Arbitration, and Intervention. In what ways are arbitral tribunals constituted? State the chief rules relating to arbitration.

8. How does War affect the relations of the subjects of the enemy-states? Illustrate by cases where possible.

9. What is Contraband of War? How does Contraband affect the ship?

10. Describe the Procedure of a Prize Court.

11. Explain the following terms:—Exequatur—Sphere of Influence—Imperfect Neutrality—Jus Angariae—Cartel-ship—Booty.

12. Discuss any *three* of the following cases:—Mr. Gallatin's coachman—Don Pacifico—The Exchange—The Flad Oyen—The Shenandoah.

INTERNATIONAL PRIVATE LAW.

FRIDAY, 19*th March* 1897.—9 A.M. *to* 11 A.M.

Candidates are expected to answer EIGHT *questions, Two of which must be selected from the last Three.*

1. What is International Private Law? Explain briefly the various stages of its development.

2. What are the views of International Private Law entertained by Savigny, Bar, and Dicey respectively?

3. What is Domicile? What is the scope of application of the *lex domicilii* in International Private Law?

4. What is Nationality? In what respect is it a more useful criterion of the personal law than Domicile?

5. Explain generally the nature of the legislative provisions by which the difficulties of Double Nationality are sought to be obviated in British Law.

6. What are the existing disabilities, if any, of aliens in this country?

7. Contrast and explain the principles upon which civil jurisdiction is based in the Scottish and English systems of jurisprudence.

8. Is the Court of the Domicile of a deceased person exclusively entitled to administer his estate, moveable and immoveable?

9. Explain the inaccuracy of the phrase *domicilium originis*. How is Domicile of Origin constituted in the case of a foundling?

10. A Scotsman settles in a foreign country, where his son *A* is born and continues to reside. *A* has a son born in that country out of wedlock, but whom he legitimates by subsequently marrying the mother. Can the son succeed to any, and, if so, to which portions of the grandfather's estate situated in England and in Scotland respectively? and can he exercise the franchise in Britain?

11. A domiciled Englishman, possessed of heritable property in Scotland as well as in England, executed in England a will in English form by which he directed his whole estates to be settled under an English entail, the technicalities of which were unknown to, but the effect of which was not inconsistent with the policy of, Scots law. Could the directions of the testator receive effect as to the property in Scotland? If so, how?

12. What is Service out of the Jurisdiction? How far is it reconcileable with the maxim, *Actor sequitur forum rei*?

PROCEDURE AND EVIDENCE.

FRIDAY, 19*th March* 1897.—2 *to* 4 *o'clock.*

1. What is arrestment to found jurisdiction? How is it executed? What subjects may be arrested, and what is its effect upon the property attached?

2. What are the *induciae* in a Court of Session summons, and how may citation be effected (*a*) when the defender is within Scotland, (*b*) when he is furth of it?

3. Under what circumstances may actions be conjoined? How is conjunction accomplished, and what is its effect?

4. How can a new trial by jury be obtained, and upon what grounds?

5. What interlocutors are reclaimable (*a*) within 21 days, (*b*) within 14 days, (*c*) within 10 days, (*d*) within 8 days, (*e*) within 6 days? When is leave required.

6. When and how may cases be removed from the Sheriff-Court to the Court of Session for jury trial.

7. What interlocutors of the Sheriff-Substitute are appealable to the Sheriff, and what interlocutors of the Sheriff are appealable to the Court of Session?

8. How, and upon what grounds, may a judgment in the Small Debt Court be brought under review?

9. What is hearsay evidence, and when is it admissible?

10. What principles regulate the incidence of the burden of proof?

11. To what extent may the terms of a written document be modified by parole?

Examination Papers for Degrees of M.B. and CH.B.

FIRST PROFESSIONAL EXAMINATION.

CHEMISTRY.

MONDAY, 20*th July* 1896.—10 *to* 12 *o'clock.*

N.B.—*Express your meaning in words, and also by means of equations whenever possible.*

1. How are the following salts prepared, starting in each case from the metal?—

Silver sulphate	Silver nitrate	Silver chloride	Silver acetate.
Cupric ,,	Cupric ,,	Cupric ,,	Cupric ,,
Lead ,,	Lead ,,	Lead ,,	Lead ,,
Zinc ,,	Zinc ,,	Zinc ,,	Zinc ,,

2. Calculate the percentage composition of Urea to two places of decimals. (H=1. C=12. N=14. O=16.)

3. How are the following substances prepared from Alcohol? (*a*) Ethyl nitrite; (*b*) Ethyl chloride; (*c*) Aldehyde; (*d*) Chloroform.

4. Describe the action of aqueous solution of Ammonium sulphide on (*a*) A Cupric salt; (*b*) A Chromic salt; (*c*) Arsenious sulphide; (*d*) Stannous chloride; (*e*) Sulphur.

MONDAY, 22*nd March* 1897.—10 *to* 12 *o'clock.*

N.B.—*Express your meaning in words, and also by means of equations whenever possible.*

1. Describe the action of Chlorine on aqueous solution of each of the following—(*a*) Caustic soda, (*b*) Sulphurous acid, (*c*) Ferrous chloride, (*d*) Potassium manganate, (*e*) Potassium ferrocyanide.

2. Give the formulæ of three oxides of lead. How are they prepared? What is the action on each of them of (*a*) hydrochloric acid, (*b*) nitric acid?

3. How would you prepare (*a*) Potassium sulphate from potassium chloride, (*b*) Potassium chloride from potassium sulphate, (*c*) Barium nitrate from barium sulphate, (*d*) Cuprous oxide from cupric sulphate, (*e*) Ammonia from potassium cyanide?

ELEMENTARY BOTANY.

MONDAY, 20*th July* 1896.—1 *to* 3 *o'clock.*

(*Four Questions only to be attempted.*)

Illustrate your answers by Drawings.

1. Compare *Mucor* with *Funaria* in respect of mode of nutrition.

2. What is meant by Antithetic Alternation of Generations? Illustrate your answer by reference to the life-history of *Pinus.*

3. Describe the structure and position of the parts of a Flowering Plant that are concerned in absorption of food from the soil. Describe this process of absorption from the soil.

4. What are the parts of a typical flower? What are the homologous parts in one of the Equisetineæ (Horse-tails)? Why do these parts not form a flower?

5. Describe and compare the sexual process in *Vaucheria, Eurotium,* and *Aspidium.*

MONDAY, 22*nd March* 1897.—1 *to* 3 *o'clock.*

[*Only* FOUR *Questions to be attempted.*]

Illustrate your answers by Drawings.

1. Write an account of the structure and modes of reproduction of Vaucheria or any other green Alga. To what is its green colour due? Of what advantage is the green colour to the plant?

2. How can you prove that a plant has root-pressure, also that it transpires and respires?

3. Describe the structure of a typical plant cell.

4. What is the difference between parasitism and saprophytism? Illustrate your answer by the description of typical cases.

5. What is a bud? Describe its structure and uses.

ELEMENTARY ZOOLOGY.

TUESDAY, 21*st July* 1896.—10 *to* 12 *o'clock.*

[*Four, and only four, Questions to be answered.*]

1. Point out how the Metazoa essentially differ in structure from the Protozoa, and how in its reproduction Paramoecium differs from Hydra.

2. Contrast the Respiratory apparatus in Arenicola, Nephrops, Myxine, Rana, and Columba.

3. Point out those features of a Bird's skeleton which you associate with the faculty of flight. How does a Bird's skeleton differ from that of a Mammal?

4. Explain, giving examples, the following phrases:—Alternation of Generation; Sexual Dimorphism; Warning Colours; the Survival of the Fittest; Colonial Animals; Protective Assimilation.

5. Enumerate, giving examples, the Orders of the Mammalia. Give a geographical distribution of any three Orders.

TUESDAY, 23*rd March* 1897.—10 *to* 12 *o'clock.*

[*Only* FOUR *questions to be answered.*]

1. Contrast the excretory and reproductive organs in:—Arenicola, Helix, Myxine, and Columba.

2. Describe the jaws and the branchial skeleton and the mode of attachment of the former to the skull in a Skate. Mention the corresponding parts in a Frog.

3. Give an account of the development of the Nervous System in any of the Chlordata (Vertebrata). What other structures are formed from the Epiblast besibes the Nervous System?

4. Write a short account of the Mammals of *either* Australia *or* South America. Where is Wallace's line?

5. Mention three animals that have the power of changing colour, and indicate how the change in each case is effected. What are some of the uses of colour in the Animal Kingdom?

PHYSICS.

TUESDAY, 21*st July* 1896.—1 *to* 3 *o'clock.*

(*Only* FOUR *questions to be answered.*)

1. The Dynamical Equivalent of the Unit of Heat is 1390 foot-pounds. Explain this statement. Find how many units of heat will be generated in the three following cases:—

(1) By the cooling, through a range of 20° C., of 16 lbs. of a substance whose specific heat is $\frac{1}{5}$;

(2) By the condensation of 12 lbs. of a saturated vapour whose latent heat is 200;

(3) By the impact upon a horizontal plane of a mass of 150 lbs. which has fallen from rest through a distance of 100 yds.

2. Explain generally the relation between the pressure in a skin full of liquid and the tension produced in the walls; and compare the tenacities of two such skins forming spheres of radii 3 and 1 when they are burst by pressures as 5 to 2.

3. State the laws of Reflection and Refraction of Light, explaining the terms employed. Show how to find—

(1) The successive images of a luminous point placed in the region between two plane mirrors inclined to one another at an angle of 60°;

(2) The course of the rays of light which reach the eye from an oar half immersed in water.

4. Give Ohm's Law and Joule's Law. In one of two conductors a current of 2 units generates 5 units of heat per second; and in the second a current of 4 units generates 10 units of heat per second. What is the ratio of the resistances of the two conductors?

5. Describe in detail experiments which illustrate the intimate relation between electricity and magnetism. Under what conditions can each produce the other?

6. Point out the essential nature of musical sound, and the effect on its pitch produced by relative motion of the source and the listener. Why is no such effect produced by wind?

TUESDAY, 23*rd March* 1897.—1 *to* 3 *o'clock.*

(*Only* FOUR *questions to be answered.*)

1. What is meant by a *specific* property of matter? Give illustrations, and explain any method of determining (1) the specific gravity, and (2) the specific heat of a liquid.

2. Give Boyle's and Charles' Laws. For what substances are they approximately true?

Two vessels, whose volumes are as 1 to 3, are filled with air at one atmosphere of pressure and 0°C. The contents of the

vessels are then interchanged. Find the pressures at 0 C., and also the temperature to which the rarer gas must be raised so as to make the pressures equal.

3. Why can Mechanical Energy be wholly transformed into Heat, while Heat can only in part be transformed into Work? What circumstances determine the amount of this part?

4. Distinguish between Noise and a Musical Note. In what respects may notes differ in their subjective effects, and what are the corresponding objective properties of the air disturbance?

5. Explain the production of colours round the image of an object viewed through a lens or system of lenses. Show how this chromatism may be practically got rid of.

6. State Ohm's Law, and show how you would experimentally test its accuracy.

The intensity of an electric current is 9 units. An additional resistance of 3 units is introduced into the circuit, and the current falls to 6. Find the electromotive force and the original resistance in circuit.

SECOND PROFESSIONAL EXAMINATION.

ANATOMY.

THURSDAY, 23*rd July* 1896.—10 *to* 12 *o'clock.*

1. Describe the Temporo-Maxillary Joint. Give the precise position of the muscles, vessels, and nerves which are in relation to the ascending ramus of the lower jaw.

2. Define the term "omentum" as applied to a fold of the peritoneum. Name the examples present in the abdomen, and describe their attachments. Write an account of the appearance and microscopic structure of the *great* omentum.

3. Give, step by step, the dissection required to expose the whole length of the Brachial artery. Describe the relations of that vessel.

4. Describe the origin, course, and relations of the external and internal Popliteal Nerves. State the distribution of the branches which arise directly from them.

FRIDAY, 28*th March* 1897.—10 *to* 12 *o'clock.*

1. Give the boundaries of the Carotid portion of the anterior triangle of the Neck. Name the parts seen in a dissection of this portion of the triangle, and describe the position and relation of each of the structures exposed.

2. Describe the course and relations of the two Pneumogastric nerves in the Thorax. Give an account of the microscopic structure of a nerve.

3. Group the Muscles of the Thigh, Leg, and Foot, in accordance with their nerve supply, and state which of these muscles are supplied by more than one nerve trunk.

4. Describe the *insertion* of the muscles which act as direct *flexors* of the Radio-carpal joint. What objects enter into the formation of the articular surfaces of this joint?

PHYSIOLOGY.

THURSDAY, 23*rd July* 1896.—1 *to* 3 *o'clock.*

1. Give an account of the mechanism of the process of swallowing solid and fluid food, omitting the nervous factors involved.

2. (*a*) Describe the structure of the nerve fibres and nerve cells that predominate in the Sympathetic System. (*b*) State the chief functions of the Sympathetic System.

3. What electrical phenomena have been observed in

connection with the ventricle of the frog's heart, and what experimental methods are suitable for their demonstration.

4. Describe the minute structure of an intestinal villus, and give an account of the process of absorption in the small intestine.

FRIDAY, 26*th March* 1897.—1 *to* 3 *o'clock.*

1. Describe Nonstriped Muscle as it occurs in a Mammal in regard to the following points:—(*a*) Where it occurs; (*b*) Its microscopical structure; (*c*) Its arrangement in the Small Intestine and its functions there; (*d*) Compare briefly the character of its contraction with that of cardiac and of skeletal muscle.

2. (*a*) Enumerate the constituents of human bile; (*b*) What is known regarding the sources of the several constituents? (*c*) What is the amount of bile secreted daily, and how is the amount affected by the food?

3. (*a*) How has the site of the Respiratory Centre been approximately determined? (*b*) How is it affected by different states of the blood and of the nervous system?

4. Both eyes after looking at a distant object are directed to a near one. Describe the adjustments necessary in order that distinct single vision of the near object may be established, and explain why they are necessary.

MATERIA MEDICA.

FRIDAY, 24*th July* 1896.—10 *to* 12 *o'clock.*

1. Describe briefly how *Sulphate of Zinc* is prepared. What are its local effects, and the effects of small and of large doses when intoduced into the stomach?

2. What is the action of *Hydrocianic Acid* on the nervous

system on the heart and on respiration? State the therapeutical applications and doses of dilute hydrocyanic acid.

3. Contrast *Nitrite of Amyl* with *Nitrite of Sodium* in regard to (*a*) physical characters, and (*b*) action. What are the therapeutic uses, the doses, and the methods of administration of Nitrite of Amyl?

4. What is the relationship of *Codeine* to *Morphine* in regard to (*a*) nature of action, and (*b*) activity? State the chief therapeutic uses and the doses of Codeine.

5. Define *Charta*. Mention those that are officinal, and give the therapeutic uses of each.

SATURDAY, 27*th March* 1897.—10 *to* 12 *o'clock.*

1. By what different channels may medicines be administered in order to produce their general as distinguished from their merely local effects? What are the special advantages or disadvantages belonging to each channel of administration?

2. Give an account of the pharmacological action of *Zinc Compounds* in general. State the therapeutic applications of Sulphate of Zinc and of Oxide of Zinc.

3. From what is *Guaiacol* prepared? What are its physical characters and therapeutic uses, and the methods of using it?

4. How is *Asafœtida* obtained? What is its chemical composition? What are its doses and therapeutic uses?

5. What is *Jalapa*? Give a short description of its appearance, and mention its officinal preparations and their doses. Describe its action, and state in what cases it is specially useful.

THIRD PROFESSIONAL EXAMINATION.

PATHOLOGY.

TUESDAY, 28*th July* 1896.—10 *to* 12 *o'clock.*

1. *Dropsy.*—What are the causes of Dropsy? Discuss its Pathology.

2. *Ulcerative Endocarditis.*—Give an account of its causes. Describe the changes produced by it in the Heart and its valves, and indicate briefly the possible effects in other organs.

3. *Rickets.*—Describe the principal changes found in the Bones in Rickets.

4. Enumerate the forms of ulceration which may occur in the Oesophagus and the Stomach respectively, and describe one form in each.

FRIDAY, 2*nd April* 1897.—10 *to* 12 *o'clock.*

1. *Aneurism.*—What are the possible causes of Aneurism? In what positions are aneurisms especially observed? Give a brief account of the principal changes in their walls and contents.

2. *Leucocythæmia.*—Describe the principal changes in the blood and internal organs in this disease.

3. *Peritonitis.*—Describe the various forms of Peritonitis. Discuss the pathology of the more important forms.

4. *Immunity.*—What is meant by this term? In what ways may Protective Inoculation be used for prevention of a specific infective disease or for its treatment? Give an example of each.

MEDICAL JURISPRUDENCE.

TUESDAY, 28*th July* 1896.—1 *to* 3 *o'clock.*

I.—*Corrosive and Irritant Poisons.*

1. Distinguish between the *modus operandi* of a corrosive and an irritant poison.

2. Give an example of each.

3. Under each example state what are its leading symptoms, and the appropriate treatment.

II. *External Injury—Blow or Fall?*—A man is found on the street with an injury of the front of the head. It is alleged for the prosecution that he was knocked down by a severe blow; it is alleged in defence that the injured man was running away from the accused, that he tripped, and in falling received the injury. What observations might you make to show which of these stories was true?

III. *Prussic Acid.*—A person has swallowed a full poisonous dose of this drug. If you were called soon (say in ten or fifteen minutes) and found him still alive, what symptoms would be present, and what would be your treatment?

PUBLIC HEALTH.

TUESDAY, 28*th July* 1896.—1 *to* 3 *o'clock.*

I. *Epidemic Diphtheria.*—What are the most common means by which Diphtheria is disseminated epidemically? State the appropriate measures in each case for controlling the outbreak, and describe, in detail, the steps to be taken to limit the spread of the disease in a house when the patient must necessarily be treated at home.

II.—*Vitiated Air.*

(*a*) What are the changes which take place in the air of an overcrowded room?

(*b*) State briefly, in general terms, the methods you would adopt to ascertain the extent to which the air of an overcrowded room had become vitiated.

(*c*) What effects to health are likely to follow residence in overcrowded rooms?

III. *Duration of Infection.*—At what period would you certify that a child, a member of an infected household, might safely return to school, after exposure to infection from—

(*a*) Small-pox?
(*b*) Chicken-pox?
(*c*) Scarlatina?
(*d*) Measles?
(*e*) Whooping-cough?
(*f*) Mumps?

State briefly your reasons in each case, naming the diseases in the order in which they are given.

MEDICAL JURISPRUDENCE.

FRIDAY, 2*nd April* 1897.—1 *to* 3 P.M.

I.—*Criminal Abortion.*

(*a*) What constitutes the crime?

(*b*) Mention the chief criminal methods, mechanical and medicinal, employed for the purpose.

II.—*Carbonic Oxide Poisoning.*

(*a*) What are the symptoms of Carbonic Oxide poisoning?

(*b*) How would you treat such cases?

(*c*) In what ways may Carbonic Oxide poisoning occur in this country?

III. *Death from Starvation.*—State what appearances, (*a*) external and (*b*) internal, you would expect to find in the body of a person who had died from starvation.

PUBLIC HEALTH.

FRIDAY, 2*nd April* 1897.—1 *to* 3 *o'clock.*

I.—*Water Supply.*

(*a*) Name the diseases that can be spread by means of contaminated drinking-water.

(*b*) Describe some of the ways in which water may become specifically polluted.

II.—*Dampness of Dwellings.*

(*a*) What are the chief causes of dampness of dwellings?

(*b*) State what means you would advise to remedy these causes.

(*c*) What effects to health are likely to follow residence in a damp house?

III.—*Disposal of Excrement.*

(*a*) Describe shortly the methods of excrement disposal known as the "water carriage," and the "dry" systems.

(*b*) Indicate under what circumstances you would give a preference to one or other of such methods.

FINAL PROFESSIONAL EXAMINATION.

MEDICINE.

MONDAY, 15*th June* 1896.—10 A.M. *to* 12 NOON.

*** *Only* THREE *Questions to be answered.*

1. *Diphtheria.*—Give a brief account of its etiology, and describe its symptoms, sequelae and treatment, giving two prescriptions (as you would send them to the Druggist) for local applications to the throat.

2. *Pneumothorax.*—Describe its causation, symptoms, physical signs, and treatment.

3. *Paralysis of Voluntary Motion.*—State what is meant by it. Enumerate the lesions and the seats of lesions to which it may be due, and indicate the essential clinical features proper to each seat.

4. *Tubercular Meningitis.*—Give an account of its etiology,

and describe its symptoms and treatment, writing two prescriptions, one for internal administration and one for outward application, which might be employed in such a case.

MEDICAL JURISPRUDENCE.

MONDAY, 15*th June* 1896.—1 *to* 3 P.M.

I.—*Death by Hæmorrhage.*—What would be the post-mortem condition of the undermentioned parts in death from hæmorrhage?

1. Skin.
2. Mucous membranes.
3. Lungs.
4. Heart.
5. Serous membranes.

II.—*Starvation.*—What are the post-mortem appearances?

III.—*Poisoning with Carbolic Acid.*

1. What are the symptoms?
2. What is the period of invasion?
3. What is the average period of death?
4. What treatment would you adopt?

PUBLIC HEALTH.

MONDAY, 15*th June* 1896.—1 *to* 3 *o'clock.*

1. *Disinfection.*—Describe in detail the method you would adopt to secure the efficient disinfection of the following:—

(*a*) A hair matress used by an Enteric Fever patient.
(*b*) The clothing and bed-linen of a child suffering from Scarlet Fever.
(*c*) A Cholera stool.
(*d*) A room in which a death from small-pox has occurred.

II.—*Dampness of Dwellings.*

(*a*) What are the chief causes of dampness in a dwelling?

(*b*) State what means you would adopt for its prevention in each case.

(*c*) What effects to health are likely to follow residence in a damp house?

3. *Water Supply.*—Enumerate the advantages and disadvantages of:—

(*a*) Shallow wells, (*b*) rivers, (*c*) Limestone springs, and (*d*) upland gathering grounds, as sources of domestic water supply.

SURGERY.

TUESDAY, 16*th June* 1896.—10 A.M. *to* 12 NOON.

(*Only* THREE *Questions to be answered.*)

1. Describe the operation of opening the *Mastoid Antrum*. In what circumstances would you recommend the operation?

2. Tumours of the *Lower Jaw.*

State the (1) Varieties.
(2) Clinical Features.
(3) Treatment of a Tumour of the *Ramus.*

3. *Organic Structure* of the *Urethra.*

State the (1) Causes.
(2) Positions.
(3) Secondary Results.

4. Name four injuries which may occur in the Region of the Elbow Joint.

State the (*a*) Symptoms; (*b*) Diagnosis; (*c*) Treatment in each injury.

MIDWIFERY.

TUESDAY, 16*th June* 1896.—1 *to* 3 *o'clock.*

1. Describe Occipito-Posterior Positions under the following heads:—

a. Diagnosis.

b. Mechanism, normal and abnormal—indicating the dangers of the latter.

c. Management in normal and abnormal cases.

2. Caesarian Section.

a. Give indications, and state with what other operations it comes into competition.

b. Describe the operation.

c. Indicate the risks, and state what modifications have been proposed to meet them.

3. *a.* Describe the structure of the Mucous Membrane of the Cervix uteri.

b. Indicate the changes in Cervical Catarrh, and give the Etiology, Diagnosis, and Treatment.

CLINICAL MEDICINE.

Examinations, written, oral and practical, on cases in wards of the Royal Infirmary.

CLINICAL SURGERY.

Examinations, written and oral, on the Symptoms, Diagnosis, and Treatment of Surgical Cases in the wards of the Royal Infirmary.

Papers for Degrees in Music.

FIRST PROFESSIONAL EXAMINATION.

ELEMENTS OF MUSIC.

TIME—*One hour and a half.*

1. What distinguishes Compound Measures from Simple Measures? Give four examples of both kinds, and state in each case how it is compounded.

2. Write a Minim, a Semibreve, a Two-bar Rest. Write also the two forms of a Crotchet Rest.

3. What is the name of the longest note-value now generally used in music? Substitute for the word of Latin derivation a word of Saxon derivation, and explain why our longest note bears this name.

4. What is the object of Clefs, and what is the origin of their shapes? How many C, F, and G Clefs are now and were formerly used?

5. Define the terms *Diatonic*, *Chromatic*, and *Enharmonic*, and give examples of each in connection with intervals and chords.

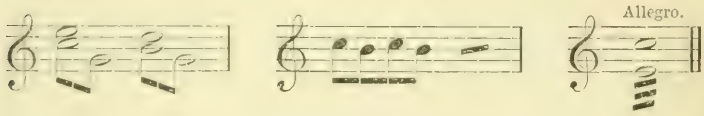
6. Translate and explain the following words and phrases:—

Tempo, *Allegro*, *Allegro assai*, *Il più presto possibile*, *Meno mosso*, *Stretto* (with regard to time), *Calmato*, *Stringendo*, *Alla breve*, *Mano sinistra*, *Rinforzando*, *Pizzicato*, *All' ottava*, *Coll' ottava*, *Colla voce*, *Da capo*, *Dal segno*, *Da capo al segno e poi la coda*, *Dal segno al segno*, *Ritornello*, *quasi una fantasia*, *Melodrama*, *Saltarello* and *Sarabanda*.

7. Write in full the following abbreviated words:—

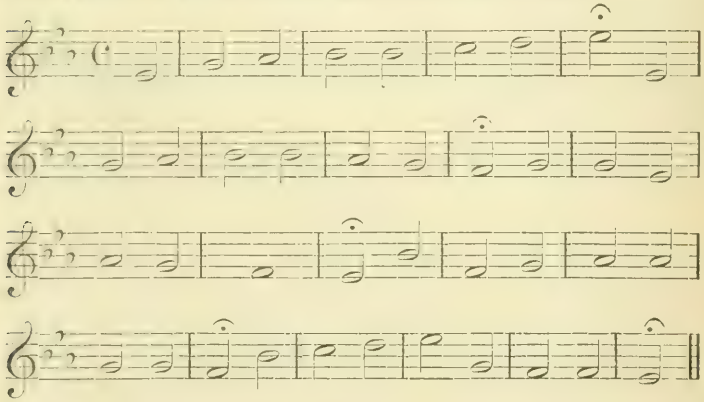
m.d., *m.g.*, *col. D.C.*, *con espr.*, *unp.*, *sim.*, *rf.*, *tr.*, and *rit.*

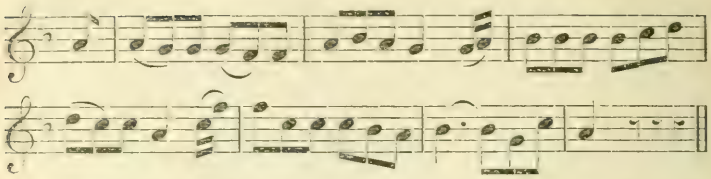
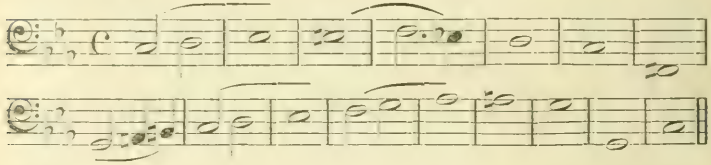
8. Describe the nature of the *Shake*, *Turn*, *Appoggiatura*, *Acciaccatura*, *Mordent*, *Pralltriller*, and *Nachschlag*.

9. Write in full the following abbreviations. Say how the last example would be executed on the pianoforte and how on the violin :—

HARMONY.

TIME—*Three hours.*

1. Add three lower parts to the following Chorale, figure the result, indicate the modulations, and name the closes :—



2. Harmonise the following melody so that the whole (melody and accompaniment) is suitable for performance on the pianoforte :—

3. Write above this bass three parts, one of which must always be of a flowing nature, consisting mostly of crotchets, and comprising suspensions, passing notes, auxiliary notes, and ornamental harmonic notes. Make all the parts as interesting as possible :—

4. Modulate :—

(*a*) from D minor to F major by means of a chord (secondary) of the seventh common to both keys.

(*b*) from F major to B major by means of a chord of the diminished seventh.

(*c*) from E major to D flat major by means of an enharmonic change.

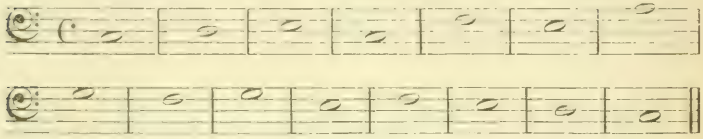
(*d*) From D major to E minor, F major, E flat major, and B major, and back to D major, by various means.

COUNTERPOINT.

TIME—*Three hours.*

1. Add three parts in the first species to the following C.F.,

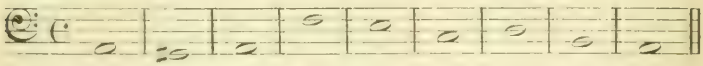
placing the latter first in the Soprano then in the Bass, and lastly in the Tenor.



2. Write a part in syncopated counterpoint below the foregoing C.F., and another part, in the first species, above it.

3. Put the foregoing C.F. in the soprano, and add to it a middle part in the third species, and a bass part in the first species.

4. Add a part in the second species above the following C.F:—



5. Place the second C.F. in the soprano, and add to it a tenor part in florid counterpoint, and an alto and a bass part in the first species.

FORM.

TIME—3 *hours.*

1. First point out the characteristic feature of the Rondo, and afterwards describe some of the Rondo forms.

2. Define the terms "Answer," "Counter subject," "Exposition," "Episode," and "Stretto," used in connection with Fugue.

3. What is the chief difference between the musical forms of the 16th and those of the 18th century?

4. Analyse Schubert's song "Der Fischer" (The Fisher) with regard to structure of periods, closes, modulations, and nature of accompaniment.

5. Analyse Beethoven's Sonata in B flat major, Op. 22, the first and the last movement.

6. Analyse J. S. Bach's Fugue in G major, Part I., No. 15 of "Das Wohltemperirte Clavier."

HISTORY OF MUSIC.

Time—2 *hours.*

1. What is the fundamental difference between the music of Antiquity and the larger part of the Middle Ages on the one hand, and that of the latter part of the Middle Ages and Modern Times on the other hand? Further, what important difference is discernible between the music of the earlier and later part of the second period? In short, what is the division of the history of music founded on elementary, thoroughgoing parts?

2. Which were the principal Schools up to the end of the 16th century, and which the leading composers in these several schools? Give dates as well as names.

3. Who were the most notable actors in the origination of the musical drama, and what were the aims of these men?

4. State the most important characteristics of the Opera of Peri and Caccini, of Lully, of Alessandro Scarlatti, of Gluck, and of Wagner.

5. At what time were in vogue the Madrigal and the Glee? And in what respects do these two kinds of composition differ from each other?

6. When flourished Heinrich Schütz, Henry Purcell, Giacomo Carissimi, Viotti, Grétry, Pergolesi, Clementi, Legrenzi, Merulo, and Hummel? And what are the most notable facts about them?

Papers for the Macpherson Scholarship.

I. OLD GAELIC.

1. Translate into English :—

Bá air sudiu dan conacrad Ailill do Chonchobur co n-Ultu immi, cid dia ra bi arréim. Dorrími Sencha iarom in caingin immá tullatár, i. im chomuaill in trír chaurad immá curathmír ocus im chomúaill na m-ban immá tússigecht isna fledaib, úair ní rodmatár a m-brethugud innách baliu aili acht ocut-su. Sochtais Ailill la sodain, ocus ni bu fáelid leis a menma. Nir bo chucum-sa ém or sé ro bo chóir dál inna caurath sin do thabairt, mani tabraiter ar miscais. Ni bá nech bas ferr nod gléfe ém or se atai-siu. Maith limsa ré scrutáin dam fris dan or Ailill. Recam-ni a les ém ar curaid, ol Sencha, ar is mór do midlachaib allóg. Lór lim-sa dan tri lá ocus teóra aidchi fri sodain ol Ailill. Ní foreraid cairde dan aní sin ol Sencha. Timgartatar Ulaid celebrad iar sudiu ocus bátár budig ocus doberat bennachtain do Ailill ocus do Medb, ocus dobertatar mallachtain do Bricrind, úair iss e fod rúair a n-imchossait, ocus lotar dia crich iar sudiu, ocus fácbait Loegaire ocus Conall ocus Coinculainn día m-brethugud do Ailill. Ocus dobrethe praind cetna do cach fir díb cach n-aidche.

2. Translate into Old Gaelic :—

Now the foster father of the maiden was on a time flaying a calf. It was in winter, the snow was on the ground, and a raven was drinking the blood of the calf. Dear to me, says Deirdre, would that man be whose hair is of the colour of the raven yonder, his cheek like the blood, and his body like the snow.

3. Translate into English :—

Cret in dá fhert móra so atchiam a Cháilte ar rí Muman, in

triar óclách doróine a muinnterdas ac ráithín na ningnad re Fionn ocus in cú aca is iat ro marb in dá óclách as a ferta sin .i. Donn ocus Dubán dá mac ríg Ulad atuaid. cinnus adrochratar ar rí Muman. a mbeithsium i ninad ar leith ó'n féinn ar Caeilte ocus a cú i medón etorra. ocus ó thiced in adaig do bíodh múr teined impaib co nach lámadh nech a bfégad etir. ocus do bádar dá mhac ríg Ulad ac foraire fhiann Eirenn ocus Alban in adaig sin. ocus táncatar fó trí i timchioll na féinne ocus in tres fecht táncatar atchonncadar in múr teined. ocus adubairt Donn mac ríg Ulad : ingnad mar atáit in triar óclách ocus a cú etorra re bliadain innosa. ór ro fhógradar gan nech do dhul dá bfégad ó thicfad adaig.

4. Decline the article in Old Gaelic (M. F. N., Sing. and Pl.), and deduce the early Celtic forms.

5. Combine the prepositions *o*, *de*, *mu*, and *eadar*, with the pers. pron. (sing. and pl.) in Old and Modern Gaelic. Add a note to each preposition showing its etymological relations.

6. Illustrate, by reference to the irregular verbs, the influence of the accent or stress in shaping the present form of these verbs.

II. MODERN GAELIC.

1. Translate into English :—

Nan tigeadh ortsa foirneart,
Gu d'leon o chrìch aineolaich,
Coigrich le rùn do-bheirt,
Gu d'chòir thoirt a dh'aindeoin diot ;
'S iomad làn cheann-ìleach,
'S lann liobhta 'm beairt dhaingeann ann,
A thàirneadh suas ri d' shìoda,
De t'fhìor-fhuil da t'anagladh.
Fuirbidh'n chomasach nach cromadh,
Ro fhrois tholladh phearsannan ;

Nach biodh somult dhol air cholluin,
'N àm bhi sonnadh chlaigeannan;
Crun-luath lomarra 'ga phronnadh,
Air pìob loinnich thartaraich,
A chuireadh anam anns na mairbh,
A dhol gu fearr-ghleus gaisge leo.

2. Translate into idiomatic Gaelic (Scottish or Irish):—

But let us leave the dead to bury their dead, and let us who are alive go on unto perfection. Let the Celtic members of this empire consider that they too have to transform themselves: and though the summons to transform themselves be often conveyed harshly and brutally, and with the cry to root up their wheat as well as their tares, yet that is no reason why the summons should not be followed so far as their tares are concerned. Let them consider that they are inextricably bound up with us, and that if the suggestions in the following pages have any truth, we English, alien and uncongenial to our Celtic partners as we have hitherto shown ourselves, have notwithstanding, beyond perhaps any other nation, a thousand latent springs of possible sympathy with them. Let them consider that ideas and forces are stirring in England, that day by day these new ideas and forces gain in power, and that almost every one of them is the friend of the Celt and not his enemy.

3. Translate into English:—

Ro ghluais an torc le fánadh an chnuic síos, agus níor fheud Diarmuid do chur di ris an rae sin. Ro ghluais roimpe a h-aithle sin nó gu ráinig Eas ruaidh mhic Bhadhairn agus mar ráinig an sruth ruadh tug trí léimeanna luthmhara tars an eas anonn agus anall, acht níor fheud Diarmuid do chur dá drom ris an rae sin; agus táinig a bh-frithing na conaire ceudna go ráinig go h-árd na beinne suas arís. Agus ar d-teacht go mullach an chnuic di do chuir Diarmuid dá drom, agus ar d-tuitim chum láir do tug an torc sith sanntac sárláidir air, gur léig a abhach agus a ionathar

re n-a chosaibh. Acht cheana, ar bh-fágbháil na tulcha dhi tug Diarmuid urchar áthusac do chúl an chloidhimh ro thárla ina láimh aige, gur léig a h-innchinn ria gur fhágaibh marbh gan anam í, gur Ráth na h-Amhrann ainm na h-áite atá ar mhullach na beinne ó shoin ilé.

4. State the rule applicable to a primitive nasal termination in modern Irish, and illustrate by use of *ar n-* "our," with a substantive.

5. Illustrate fully the usage of modern Scottish Gaelic with respect to nouns in Apposition.

6. Analyse any *five* of the following words, showing their etymological affinity:—*Altrum, breitheanas, cumhachd, deideadh, gairm, oirdheare, truacanta, uireasbhuidh.*

III. LITERATURE.

1. Name the principal MSS. upon which the Goidelic portion of the Grammatica Celtica is based, and describe in detail any one of them.

2. Give a brief account of the life and literary labours of Columbanus *or* Adamnan.

3. Give a full abstract of the Tale of the Sons of Uisneach, and describe its place in Gaelic literature.

4. Give a succinct account of the influence of the Norse Invasion and Occupation *or* of the Reformation on the language and literature of the Gael.

5. Write a short paper on Keating *or* Alexander Macdonald as Gaelic authors.

6. Name the main periods in the history of the Gaelic language, pointing out the leading characteristics in flexion which distinguish each period.

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General Index.

PAGE

Academic Costume..... 30
Accounts, University, Abstract of.....443
Addresses of Professors xx
,, Emeriti Professors xxi
,, Professors resigned xxi
,, Lecturers.....xxii
Agricultural Society.....470
Army, Examinations for.....466
Arts, Faculty of 2, 18, 55
Academic Year.....99
Bursaries in Arts[1]—
Allan (66).....152, 161
Angus Club (45) 151, 157
Ardvorlich (42).....151, 157
Argyllshire (41).....151, 156
Ayrshire (32).....150, 155
Baxter of Balgavies (76).....152, 162, 185
Blair (25).....150, 155
Border Association and Sir Walter Scott (40) 151, 156
Brown (15).....150, 154
Bruce (29)..... ...150, 155, 156
Bryson (13).....149, 153
Buchanan.....188
Caithness Association (34) 150, 156
Chrystie (12).....149, 153
County Club and Private Bursaries 184
Cousin (73) 152, 162, 184
Cowan (43).....151, 157
Dalgliesh and Macmorran (8) 149, 153
Dow (24) 150, 155
Dundas (17).....150, 154, 185
East Lothian (54) 151, 158
Ed. Assoc. for Univ. Ed. of Women.....188

PAGE

Arts, Faculty of—
Bursaries—
Ed. Assoc. for Univ. Ed. of Women—
Mair.....188
Victoria Jubilee 188
Zetland 188
Endowment Association (55) 151, 158, 184
Fairbairn (67)..... 152, 161, 184
Ford (10) 149, 153
Fotheringham and Forrest (52).....151, 158, 185
Fraser (18).....150, 154
Fraser (Donald) (75) 152, 162, 186
Gillan (56).....151, 158
Glenbuck (69) 152, 161
Grant (21).....150, 154
Grierson (47) 151, 157, 185
Harrison (38) 151, 156, 189
Heriot (1).....149, 152, 186
Heriot (for Women) 149, 152, 186
Heriot (for Women studying Medicine) 187
Heriot St Geo. Training Coll. 187
Heriot High School (1). 149, 152, 186
Horsliehill-Scott (37)...151, 156, 189
Hume (19).....150, 154
Jamieson (26).....150, 155
Jardine (Bidder) (27)...150, 155,
Jardine (Thorlieshope) (68) 152, 161, 185
Johnston, A. (2).....149, 153
Johnstone, R. (5, 6) 149, 153
Johnstone of Harthope (49) 151, 158
Lambert (50).....151, 158
Lanarkshire (48) 151, 158

[1] The figures in parentheses refer to the numbers of the Foundations

PAGE

Arts, Faculty of—
Bursaries—
Lennie (28).....150, 155
M'Diarmid (30) ... .150, 155
Macdougall (63)....151, 160, 188
Mackenzie (70).....152, 161
Mackinnon (60)....151, 159, 185
Maclaurin (71).....152, 162, 186
Mann (65) 152, 160, 185
Marshall (51).....151, 158
Maule (74).....152, 162, 185
Menzies (23).....150, 154
Millar (20).....150, 154
Mitchell and Short (16) 150, 154
Newton (64) 152, 160
Orkney and Zetland (46) ... 151, 157
Patrick (31) 150, 155, 184
Patterson (58) 151, 159
Peeblesshire (33).....150, 156
Penman, J. (9) 149, 153
Pringle and Wardrop (14)...149, 154
Private Bursaries.....184
Ramsay (11).....149, 153
Renton (62).....151, 159, 186
Rhind (35).....151
Sibbald (44) 151, 157, 184
Simson (72) 152, 162, 187
Spence (39).....151, 156, 189
St George's Classes.....188
Stuart (22).....150, 154
Thomson (57).....151, 158, 185
Town Council Bursaries.....184
Trotter and Penman (3).....149, 153
Tyndall Bruce (36) 151, 184, 189
Weir, Jenkins, Hepburn, and Lightbody (7) 149, 153
Welsh, John (Carlyle) (59) 151, 159
Whitelaw (61).....151, 159, 184
Wight, M'Call, and Christie (4) 149, 153
Zetland, Earl of (53)....151, 158, 186
Bursaries, &c., Open 1897-98...182
Honours List in comp't'n for 143
Exam. Papers for.....527
Add. Papers for Bursaries...586
Payable by Factor 190

PAGE

Arts, Faculty of—
Classes, Programme of, and Fees 55
Class Prize and Honour Lists..478
Courses in Arts—
Astronomy..... 91
Botany..... 92
Celtic..... 74
Chemistry 92
Classical Archaeology..... 67
Dynamics 90
Education 81
English 68
Fine Art..... 96
French..... 70
Geology 92
German..... 72
Greek 64
Hebrew and Semitic Languages 74
History, British..... 92
,, Constitutional..... 97
,, Ecclesiastical..... 97
,, Roman 97
Italian 71
Latin 62
Logic and Metaphysics..... 75
Mathematics 84
Moral Philosophy..... 77
Natural Philosophy..... 87
Natural Theology 83
Philosophy of Law 83
Physics (Experimental).....90
Political Economy 80
Public International Law ... 98
Sanskrit and Comparative Philology 74
Zoology 92
Curriculum in Arts 99
For Women.....107
Period of Study..... 99
Preliminary Examination.... 99
Fee, Dates of Entering, and Time-Tables for Preliminary 120
Preliminary Exam. papers...527
Joint Board of Examiners...114
Additional Regulations by Joint Board 115
Exams. accepted as equivalent for Preliminary.....118

PAGE

Arts, Faculty of—
Curriculum—
Ordinary Degree.....101
Fees for Exams.....122
Dates of entering for Exams. 123
Time-Table of Exams.....124
Outline of Subjects of Examinations for M.A. 126
Examination Papers.....610
Honours Degree 103
,, Outline of Exams. .153
,, Examin. Papers 657
Graduates in 1896-97 147
,, with Honours Lists of 145
Sponsio Academica for Graduates in Arts.....145
Special Study and Research 109
Higher Degrees 111
D. Litt.....113
D. Phil. 112
D. Sc. 111
Conferred in 1897 144
Fellowships—
Guthrie 176
Hamilton 176
Heriot..... .....177, 179
Shaw 176
Swiney Lect. in Geology.....179
Open in 1897-98..... 179
Payment of.....190
Prizes—
Bruce.....163, 182
Cousin.....164, 182
Dickson Travelling Fund 178, 181
Moray Bequest for Research178, 181
Edinburgh University Club (London).....163
Gray..... .....163, 182
Hamilton 182
Kelland.....164, 182
Muir.....163, 182
Neil Arnott.....406
Newton (64).....160, 182
Rector's.....163, 182
Scott and Dunbar.....164, 182
Open in 1897-98.....182
Payment of.....190
Scholarships—
Arnott, Neil.....169, 181

PAGE

Arts, Faculty of—
Scholarships—
Baxter (Sir D.), Mathemat..165
Philosophical 165
Baxter (J. E.), in Classics ...165
in Mental Philosophy.....165
in Mathematics 165
Bruce, Classics.....166
,, Mental Philosophy. 167, 179
,, Mathematics.....167
Drummond 166
Dunlop, Vans.....170
Ferguson 169, 181
Fettes Exhibitions.....168
Gilchrist.....168
Gray 167
Lang.....174
Mackay Smith 174, 181
Mackenzie 165
MacLaren.....168
Macpherson.....174, 181
,, Exam. Papers for 801
Nichol 175
Pitt Club.....164
Rhind 168, 179
Ritchie.....175, 181
Scott 174, 181
Skirving 173
Vans Dunlop Gen. Regs. 170
Classics 171
Commer. & Pol. Econ..171, 181
English Literature and Poetry 170
Hebrew.....172
History 173, 180
Logic and Metaphysics... 172
Mathematics 172, 179
Moral Philosophy.....173, 180
Nat. Philosophy.....172, 179
Sanskrit, &c. 173, 180
Vacant 1897-98.....179
Payable by Factor.....190
Schoolmaster's Diploma.....142
Exam. Papers for.....640
Diplomas conferred, 1896-7 ...148
Arts' Students' Christian Assoc. 470
Assessors.....1, 14
Assistants, University..... 5
Associated Societies.....471
Association for better endowment of the University.....431, 469

PAGE
Athletic Club....472
Auditor 1

Benefactors of University 430
Portraits and Busts of.... 49
Bequests and Donations during 1896-97....440
Botanic Garden, Royal.... 54
Buildings, University.... 34
Buildings Extension Scheme....470
Busts of Professors, &c.... 49

Caithness Society....472
Calendar, University....xiii-xviii
Celtic Society....472
Ceremon., Ann. Graduation, &c. 30
Chairs.... 2
Chancellor....1, 10
Charter of University.... 10
Chemical Society....472
Church of Scot., curriculum for.467
Classes, Programmes of—
Arts.... 55
Divinity 263
Law 287
Medicine 311
Music 413
Science 191
Opening of New.... 33
Clerk....1, 9
Clerks, Assistant....1, 9
Clerk of Works....1, 9
Clubs, University....470
Costume, University 30
Copying at Examinations, Penalties for.... 30
Council, General, of the University 9, 25
,, Gen. Med., Representative in 16
,, Students' Representative....26
Court, University 1, 12, 31
,, Regulations of 31
,, Abstract of Proceedings of...454
Crudelius Residences for Women 476
Curators of Patronage 2, 15
Curriculum in—
Arts.... 55
Divinity 263, 270
Law 287, 293
Medicine....311, 338
Music 413, 414

PAGE
Curriculum in—
Science....191, 214

Deans of Faculties....2, 3, 4
Degrees *in Arts* Regulations for. 99
Classes....101
Outline of Exams....126
Examination Papers for 610
conferred 1896-97....147
,, *in Divinity*—
Classes....263
(B.D.), Regulations 270
Subjects of Exam. 271
Examination Papers for...756
conferred 1896-97....273
(D.D.) honorary....273
,, *in Law*....293
Classes. 287
(LL.D.) honorary....301
(LL.B.) Regulations for...293
B.L. Regulations 295
Subjects of Exam....296
Exam. Papers....768
Dates of Examination....298
conferred, 1896-97....299
,, *in Medicine*—
Classes....311
Regulations (for M.B., Ch.B., M.D., Ch.M.)....338
Preliminary Examination.338
Professional Exams....345
conferred in 1896-97 384, 391
,, *in Music*—
Classes 413
Regulations for Degrees...414
Examination Papers....796
Hon. Mus. Doc....416
conferred .... —
,, *in Science*—
Classes 191
Regulations 214
Outline of Examinations...225
Examination Papers....727
conferred in 1896-97....253
Diagnostic Society....471
Dialectic Society....471
Dickson, W., Travel. Fund 178, 181
Diplomas, Cost of—
Arts....122
Divinity, B.D....272
Law, LL.B., B.L....297

PAGE

Diplomas, Cost of—
Medicine....365, 381
Music....417
Science....248
Discipline....30
Divinity, Faculty of—
Bursaries—
Alexander (4)....274
Bayne (1)....278
Blair (4, 5)....274, 284
Buchanan (1)....275
Ettles (5)....275, 284
Grant (1)....279
Grierson (6)....275
Hepburn (10, 11, 12)....275, 285
Hunter (14)....275, 286
Jamieson (2)....279
King William (4)....275, 286
Lockerby (16)....275
Maclaurin (4)....279
M'Lurg and Penman (2)....274
Mylne (9)....275, 286
Nairne, A. (1)....274
Nairne, J. (2)....278
Ramsay (3)....275, 284
Renton (13)....275, 284
Sharp (17)....275
Sibbald (3)....279
Simson (15)....275, 285
Struthers and Leighton (2).275, 284
Thomson (8)....275, 284
Webster (7)....275, 284
Vacant, 1897-98....284
Class and Prize Lists....495
Classes, Programme of....263
Courses....265
Arabic....267
Biblical Criticism and Biblical Antiquities....268
Divinity....265
Ecclesiastical History....268
Hebrew....266
Natural Science, Gunning Lectureship in....270
Natural Theology, Gifford Lectures in....269
Syriac....268
Curriculum....263
Graduation....270
Subjects of Examination....271

PAGE

Divinity, Faculty of—
Graduation—
Time-Table of Examinations and dates of Entering....272
Examination Papers....756
Fees for B.D....272
Graduates, 1896-97....273
Hon. Graduates, List of (D.D.) 273
Prizes—
Barty Memorial....279, 285
Dickson Travelling Fund....178
Gray....182, 286
Gunning....279
Hepburn....279, 285
Moray Bequest for Research 178
Rector's....182
Open in 1897-98....285, 286
Scholarships—
Aitken....281, 285
Bruce....282
Cobb....283
Glover....281
Gray....167
Jeffrey....283, 285
Kidd....282, 285
Maxton....281
Pitt Club....280
Travelling....—
Vans Dunlop, in Hebrew, &c. 282
in History....282
Vacant 1897-98....284
Donations and Bequests during 1896-97....440
Dumfries and Galloway Lit. Soc..473

Endowments, University....430
Association for better Endowment of University....431, 469
Entrance Fee....29
Examinations, dates of entering and payment of Fees for Degrees—
Arts....123
Divinity....272
Law....298
Medicine....366, 382
Music....417
Science....249
Examination Papers—
Preliminary....527
Bursaries....586

PAGE
Examination Papers—
Arts 610
Divinity 756
Law 768
Medicine 782
Music 796
Science 727
Schoolmaster's Diploma....640
Examiners for Degrees....6, 30
Appointment of.... 32
Absence of.... 31
Examinerships, Applications for 32
Extra-Academical Lecturers, Rules for Recognition of.... 33
,, recognised by University Court 369

Faculties 2, 3, 4, 18
Arts 2, 18
Divinity 3, 21
Law....3, 22
Medicine....4, 23
Music 4, 24
Science....3, 20
Factor for University.... 1
Fees for Classes—
Arts.... 55
Divinity 263
Law....287
Medicine....311
Music....413
Science....191
Fees for Degrees—
Arts....122
Divinity....272
Law....297
Medicine....365, 381
Music....417
Science....248
Schoolmaster's Diploma....142
for Laboratory Work..57, 196, 316
General Council.... 25
Entrance.... 29
Foundations, New. 419
Free Church Society. 473
Funds, Univ. Statement of....443

Gen. Council of the Univer. 9, 25
Geology, Swiney Lectureship in..259
Gifford Lectures on Natural Theology 83

PAGE
Gold Medallists....383
Graduation, Regulations for—
Arts....99
Divinity 270
Law....293
Medicine (New)....338
(Old)....373
Music....414
Science....214
Ceremonials, Precedence at.... 30
Gunning Lectureship in Natural Science....270

Honorary Degrees in—
Divinity 273
Law....301
Music.... —

Income and Expenditure of University....445
India, Civil Service, Regs. for....466
International Academic Committee....469

Janitor.... 9

Keepers of Museums.... 9

Laboratories—
Anatomy 197, 316
Astronomy....61
Botanical 196, 316
Chemical 197, 316
Engineering 196
Materia Medica 317
Natural History 197, 317
Natural Philosophy....316
Obstetrical and Gynecological.317
Pathological....317
Physical 61, 89
Petrological 196
Physiological 197, 316
Practice of Physic 316
Public Health....197, 317
Surgical 317
Fees 57, 196, 197, 316, 317
Law, Faculty of—
Bursaries—
Allan (5)....305
Baxter of Balgavies....185
Cairns (2)....304, 309

PAGE

Law, Faculty of—
Bursaries—
Grant (1).....305
Grierson (1).....304, 309
Jamieson (2).....305
Maclaurin (3).....305
Renton (4).....305, 309
Sibbald (3).....305, 309
Thomson (3).....304, 309
Classes, Programme of 287
Class and Honours Lists.....496
Courses 288
Civil Law 288
Comml. and Political Econ. and Mercantile Law.....292
Constitut'nal Law and Hist. 290
Conveyancing 289
International Private Law...292
Medical Jurisprudence 291
Procedure and Law of Evidence.....292
Public Law.....290
Scots Law.....288
Graduation, Regulations for—
LL.B. 293
B.L. 295
Prelim. Exam. for B.L.....296
Outline of Examinations for LL.B. and B.L.....296
Dates of Entry for Exams. and payment of Fees.....298
Examination Papers.....768
Fees for Degrees 297
Graduates, LL.B. 299
,, B.L.....301
Hon. Graduates, LL.D.....301
Prizes—
Dickson Travel. Fund.....178
Forensic.....307
Gray 182
Moray Bequest for Research178
Muirhead 307
Rector's 182
Scholarships—
Gray.....307
Lorimer.....307
Vans Dunlop Scholarships—
Commercial and Political Economy and Mercantile Law 305, 308
History 306, 308

PAGE

Law, Faculty of—
Scholarships—
Law of Nature and Nations, Civil Law and Constitutional Law and History ..306, 308
Scots Law and Conveyancing 306, 308
Scholarships, Prizes, and Bursaries Vacant 1897-98 308
Lecturers, University.....xxii, 4
,, Absence of 31
„ Extra-Academical, recognised 369
,, Regs. for recognition of 33
Lectureships, University 4
Applied Mathematics 4
Agricultural Chemistry 5
Agricultural Entomology 5
Chemical Theory 5
Diseases of Children..... 5
Diseases of the Eye..... 5
Embryology 5
Experimental Pharmacology... 5
Experimental Physiology 5
Forestry..... 5
French Language, &c. 5
Geometrical and Mechanical Drawing 5
German Language, &c..... 5
Gifford 5
Greek 4
Gunning..... 5
International Private Law..... 5
Latin 4
Logic, &c..... 5
Mathematics..... 4
Moral Philosophy..... 5
Mental Diseases..... 5
Mineralogy and Crystallography 5
Natural Philosophy..... 4
Pathological Bacteriology 5
Petrology..... 5
Plant Physiology..... 5
Procedure and Evidence..... 5
Regional Anatomy 5
Rhet. and English Lit..... 4
Swiney 259
Librarian, University..... 10
Librarians, Assistant 10

PAGE
Library, University..... 40
Regulations..... 42
Use of.....43, 44
Reading-Rooms..... 47
Library, Theological 49
Literate in Arts, conferred in 1896-97 148

"M'Ewan University Hall" 39
Matriculation 27
Sponsio Academica 28
Fees 27
Medical Council, Representative in 16
Medical Society, Royal.....468
Medical Students' Christian Association 473
Medicine, Faculty of.....311
Bursaries—
Abercromby (1) 403
Allan (14)..... ..403
Anderson (8).....403
Baxter of Balgavies.....185
Carlyle, J. A. (7).....403
Crichton (10) 403
Grant (11).....403
Grierson (4) 403
Heriot (9).....403
Jamieson (12).....403
Mackenzie (6) 403
Mackie (3) 403
Maclaurin (15).....403
Renton (13).....403
Sibbald (2) 403
Thomson (5).....403
Open in 1897-98.....411
Classes.....311
Class Prize Lists 499
Courses in 320
Anatomy.....324
,, Practical 325
,, Regional 325, 326
Botany.....320
,, Practical 321
Chemistry 322
,, Practical 323
Clinical Medicine.....336
,, ,, Tutorial.....337
Clinical Surgery 335
,, ,, Tutorial.....336
Comparative Embryology ...322
Diseases of Children.....337

PAGE
Medicine, Faculty of—
Courses in—
Diseases of the Eye.....334
Materia Medica.....327
,, ,, Practical...327
Medical Jurisprudence.....330
Medicine.....331
Mental Diseases 332
Midwifery 334
Pathology.....328
,, Practical.. 329
Pathological Bacteriology...329
Pharmacology Experimental 328
Physics 323
Physiology.....326
,, Practical.....326
Surgery 333
Vertebrate Morphology.....322
Zoology 321
,, Practical.....321
Curriculum, Minimum for Degrees in.....318
Extra Academical Teachers....369
Fees for Exams.....365, 381
Fellowships—
Freeland-Barbour.....396, 410
Goodsir 395
Leckie-Mactier.....395
Syme.. 395
Open in 1897-98.....410
Prelim. Exam. in.....338, 373
Papers for 596
Exams. exempting from.....357
Time-Table and dates of Entry 359
Professional Education (New Regulations) 339
(Old).....374
Exams. in (New).....345
,, (Old) 378
Prof. Exams., Regulations for M.B. 345
Honours in.....364
Time-Table and Dates of entering.....366, 382
D.Sc., Regulations for.....353
Exam. for M.D. 347
,, Ch.M. 348
Papers for Prof. Exams. 780
Graduation in 338
Graduation of Women ... .350

PAGE

Medicine, Faculty of—
Graduates in, with Hon.....388
Graduates in, in 1896-97.....391
M.D. Gold Medallists.....383
M.D., 1896-97 384
Prizes—
Anderson-Henry 412
Beaney 411
Cameron.....411
Dickson Travelling Fund... .178
Dobbie-Smith 408
Ellis 412
Gold Medals for M.D. Theses 407
Gray 182
Gunning 411
Milner Fothergill.....409
Moray Bequest for Research 396
Neil Arnott 406, 411
Pattison.....411
Rector's 182
Wightman.....411
Wilson.....406
Open in 1897-98 411
Scholarships—
Buchanan 401
Coldstream Memorial 398
Crichton.....402
Ettles.....396
Hope Prize.....401
Houldsworth.....402
Mackay Smith 402, 411
Mouat.....401
Murchison 400
Scott.....401
Sibbald.....397
Stark 400
Thomson.....397
Vans Dunlop—.....398
Anatomy and Physiology 399
Botany and Zoology.....399
Chemistry, Anatomy, and Physics 398
Materia Medica.....399
Pathology and Med. Jurisp. and Pub. Health.....400
Physiology and Surgery...399
Preliminary Subjects.....398
Open in 1897-98.....410
Research, Regulations for...352
Sponsio.....364

PAG

Medicine, Faculty of—
Medical Students, Registration of.....318
Missionary Association 473
Museums..... 9
Anatomical..... 52
Botanic.....51, 54
Chemistry..... 52
Fine Art..... 51
Geological..... 51
Materia Medica..... 53
Music..... 51
Natural History..... 53
Natural Philosophy..... 51
Obstetrical..... 53
Physiological..... 51
Practice of Physic..... 52
Surgery..... 53
Keepers of..... 9
Music, Faculty of.....4, 24, 413
Programme of Classes and Fees.....413
Prize Lists 525
Graduation in 414
Exam. Papers for Degrees.....796
Prelim. Exam..... .....414, 417
Dates of entering for Exams. and payment of Fees.....417
Scholarship in 418
Musical Society, University.....474

New Foundations 419

Officials of University.....1

Parliamentary Representative 1, 12
Patrons of Chairs.....2, 14, 15
Penalties for Breach of Discipline 39
Philomathic Society.....472
Photographic Society 474
Physical Society 474
Portraits of Professors and Benefactors..... 49
Precedence of Faculties..... 30
Principal 1, 16
Prize Lists, 1896-97—
Arts.....478
Divinity 495
Law 496
Medicine 499

PAGE

Prize Lists, 1896-97—
Music....525
Science....492
Professors, Addresses of.... xx
Absence of, Regulations for.... 31

Reading Rooms.... 47
in Univ. New Buildings.... 48
Rector of University....1, 11
Rectorial Election, Statistics of 468
Registrar of University General Council.... 9
Registn. of Members of Council.. 25
Reid School of Music.... 40
Representative in Parliament...1, 12
Research, Regs. for Special Study and....109, 220, 352
Rifle Shooting Club....474
Riotous Conduct, Penalties for... 30
Royal Medical Society....468
Royal Botanic Garden.... 54

Schoolmaster's Diploma....142
Papers for....640
Science, Faculty of—
Bursaries—
Buchanan....188
Baxter of Balgavies,....261
Fraser....261
Heriot....261
Jamieson....150
Renton....261
Sibbald....261
Vacant in 1897-98....261
Class, Prize, and Honours Lists 492
Classes, Programme of....413
Courses in Pure Science—
Astronomy....200
Botany....198
Chemistry....199
Dynamics....199
Embryology....197
Geology, including Mineralogy....201
Human Anatomy, including Anthropology....200
Mathematics....197
Mineralogy, &c. (Advanced) 200
Morphology of Vertebrata...198
Natural Philosophy....199
Petrology....203

PAGE

Science, Faculty of—
Courses in Pure Science—
Physics (Adv. Experimental) 199
Physiology....201
,, (Adv. Practical)....201
Plant Physiology....198
Zoology....197
Courses in Applied Science....376
Agriculture, &c....209
Agricultural Chemistry....210
Agricultural Entomology....212
Drawing and Mensuration...204
Dynamics....207
Economics bearing on Agric. 213
Engineering....205
Engineering Field Work....206
Experimental Physics....214
Forestry....213
Physics....208
Public Health....204
Fevers, &c....208
Laboratory Work....208, 237
Sanitation....208
Veterinary Hygiene....212
Fellowships—
Falconer....254, 260
Heriot....254, 260
Open in 1897-98....260
Prizes—
Anderson-Henry....409
Dickson Travelling Fund....178
Dobbie-Smith....402
Edin. Univ. Club of London 262
Ellis....262
Gray....262
Gunning Victoria....262
Kelland....262
Moray Bequest for Research 178
Newton....262
Rector's....262
Open in 1897-98....262
Scholarships—
Arnott....257, 261
Baxter (Sir D.)—
Natural Science....254, 261
Physical Science....254, 261
Baxter of Balgavies....259, 261
Dickson Travelling Fund....178
Gray....259
Hope Prize....257, 261

PAGE

Science, Faculty of—
Scholarships—
Mackay Smith—
Chemistry....257, 261
Natural Philosophy...257, 261
Physical Science (Exhibition of 1851) 258, 261
Steven 256, 261
Geology, Swiney Lectureship in ... .259
Trevelyan 258, 261
Vans Dunlop—
Agriculture 255, 261
Chemistry 255
Engineering 256
Mathematics 255, 260
Natural History, including Geol. and Bot. 256, 261
Natural Philosophy...255, 260
Open 1897-98....260
Graduation in Pure Science 214
Preliminary Examination....215
Curriculum in 216
Examinations for B.Sc.....218
Courses for Final Exam.....219
Special Study and Research, Regulations for.....220
Research Fellows.....221
D.Sc., Regulations for.....222
Graduation of Women 223
Outline of Examinations.....225
Fees.....248
Dates of Examinations.....249
Engineering, Regs. for B.Sc.—
Preliminary Examination....230
Courses of Instruction.....230
Examinations.....232
D.Sc., Regulations for 233
Outline of Examinations.....234
Fees.....248
Dates of Examinations.....249
Public Health, Regs. for B.Sc.—
Curriculum 235
Laboratory Work 237
Regulations for D.Sc.....240
Fees.....248
Dates of Examinations.....249
Agriculture, B.Sc.—
Preliminary Examinations...241
Courses of Instruction.....241
Examinations 242

PAGE

Science, Faculty of—
Agriculture, B.Sc.—
Outline of Examinations 244
Fees for Examinations.....248
Dates of Examinations.....249
Examination Papers—
in Pure Science 727, 732
in Engineering.....727, 738
in Public Health 729, 747
in Agriculture 750
D.Sc., List of. 252
Degrees conferred, 1896-97..253
Scots Law Society.....471
Senatus Academicus .....xx., 2, 17
Scottish Inter-University Rifle Match Competition 475
Shinty Club.....475
Societies, University, and Clubs.470
,, Associated..... 471
Sponsio Acad. on Matriculation 28
for Graduates in Arts.....145
for Graduates in Med.....364
Students, Matriculated, No. of... 28
Representative Council.....26
Swiney Lectureship in Geology..259

Teachers, Recognition of Extra Academical..... 33
Theological Library..... 49
Theological Society.....475
Torrie Fine Art Collection..... 50
Total Abstinence Society.....475

Union, University.....467
University Assistants 5
,, Battery 476
,, Buildings..... 34
,, Buildings Extension Scheme.470
,, Committee of Privy Council.. 15
,, Constitution..... 10
,, Court.....1, 12, 31
,, Curators.....2, 15
,, Endowment Association. 431, 469
,, Examiners for Degrees, &c. 6, 30
,, Hall 476
,, Library 40
,, Lecturers..... 4
,, ,, Addresses of xxii
,, M'Ewan Hall..... 39
,, Professors.....2, 18
,, ,, Addresses of..... xx

PAGE
University Professors, Addresses of Emeriti and Resigned Professors xxi
,, ,, Addresses of Lecturers xxii
,, Representative in Gen. Med. Council..... 16
U.P. Students' Society 476
Vice-Chancellor.....1, 11
Warders..... 9
Women's Debating Society.....477
Women Students, Crudelius Residences for..... 476

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